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REPORT

of the

TEAM FOR THE STUDY OF COMMUNITY PROJECTS AND NATIONAL EXTENSION SERVICE

Vol. III

Part II

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COMMITTEE ON PLAN PROJECTS
New Delhi

December 1957

CONTENTS

Introduction

Page

I. Inservice Training of Gram Sewaks in Rajasthan—Peripatetic Team 1
II. Working and Set up of Agriculture Department in Bihar .. 7
III. Preparation of a Working Plan for Agricultural Development Programme for a Village—Bombay State 12
IV. Integration of Grain Loans with Cooperative Credit System in Orissa 19
V. Soil and Water Conservation through Self help in Etawah—Uttar Pradesh 28
VI. Consolidation of Holdings in U.P. 34
VII. Role of Cooperative Land Mortgage Banks in the Agricultural Economy in the Andhra Pradesh. 39
VIII. Working of the Cooperative Lift Irrigation in Bombay State .. 45
IX. Working of the Forest Labourers' Cooperative Societies—Bombay State 50
X. Pilot Project in Integrated Cooperative Development—U.P. .. 52
XI. Development of Rural Industries in Madras State 59
XII. Rural Industrialisation Scheme—Mysore 65
XIII. Small Scale Production of Crystal Sugar—U.P. 73
XIV. Work done in Kerala State in the Implementation of the various Health Plans 76
XV. Health Fortnight in Rajasthan 82
XVI. Rural Health Project in U.P. 87
XVII. Cooperative Drug Development Scheme—Ranikhet—U.P. .. 90
XVIII. Phased Programme of Education in the Madras State .. 92
XIX. Mangal Dal—Pilot Experiment in Rural Youth Organisation .. 95
XX. A Study on the Integration of Functions at the Village Level in Uttar Pradesh 99
XXI. Planning Research and Action Institute, Uttar Pradesh—Functions and Organisation 111

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INTRODUCTION

The third Volume of the Report of the Team on Community Projects and National Extension Service contains in Part I Appendices to the various Sections of Volume I inclusive of Appendix 5 giving the views expressed by the State Governments/Central Ministries concerned on the draft recommendations of the Team, and in Part II some of the Special Features in the field of community development the Team came across in the different States during the course of its tour. Notes on these features were requested from the State Governments ; those supplied and considered useful are published so that each State may examine those which are new to it and, where found useful, adopt them with such modifications as local conditions may necessitate.

Balvantray G. Mehta,
Leader,
Team on Community Projects
and
National Extension Service

New Delhi,
the 21st December, 1957

I

IN SERVICE TRAINING OF GRAMSEWAKS IN RAJASTHAN PERIPATETIC TEAM

Any training given at a particular time, however perfect, can never be adequate and has got to be supplemented to keep the field workers well informed of the latest developments in the technique of the programme. It was, therefore, considered necessary to organise in-service training for the Gramsewaks who had put in two years' service to (1) make up deficiency in the initial training, (2) acquaint the Gramsewaks with the latest technique, and (3) suggest solutions to the problems that the multi-purpose workers have encountered in the implementation of the programme.

This could be achieved by (*a*) calling the Gramsewaks to the training centre for a short-term course at the centre itself, or (*b*) arranging training for a group of blocks at a place near their area of operation, by means of a Peripatetic Team specially constituted for the purpose. The decision was in favour of the latter as (1) the most of the problems of the area are identical and training could organically be related to the problems of that particular district ; (2) the number of participants would be confined to the workers in the district; and (3) there would be less dislocation in work and it would be less expensive than calling the Gramsewaks at the training centres.

A Peripatetic Team consisting of specially selected experts of the status of district officers in Agriculture, Animal husbandry and Cooperation was constituted. The trainers are in the grade of Rs. 200—15—275—20—375—EB—600. It is proposed to add an officer of the status of District Superintendent of Industries for Village and Cottage Industries Programme.

In consultation with the Training Institutions, an outline of the syllabus for the training was drawn up as noted below :—

(1) For hilly, project and normal areas :

Agriculture

Duration of two weeks ; Topics to be dealt with particular reference to the region.

1. Classification of soils—different classes of soils found in the State—their characteristics and suitability for crop growing, with particular reference to the region. 1
2. Collection of soil samples for testing—Physical properties of different classes of soils and their effect on plant growth. 1
3. Soil reclamation including improvement of alkaline and saline lands and wood infested and sub-marginal lands. 1
4. Soil erosion and its control (levelling, contour-bunding and gully plugging). 1
5. Crop rotation, mixed cropping, double cropping, use of fallows, dry farming methods including growing of drought resistant varieties. 2
6. Cultivation of important Kharif and Rabi Crops, improvements in the methods of cultivation of various crops. Recommended improved variety of different crops, by the Rajasthan Agriculture Department, improved methods of harvesting and thrashing crops and preparing produce for market. 3

7. Various methods of Irrigation—Different kinds of water lifts and factors which influence their efficiency. 1
8. Necessity of soil drainage—evils of our irrigation. 1
9. The two main classes of manures: organic and in-organic preparation of compost and preservation of farmyard manure, application of these organic manures. Time when they should be applied and the quantity required per acre where possible rainfall. 1
10. Green manuring—efforts of green manuring, quantity of green matter available per acre and the quantity of Nitrogen added to the soil by green manuring. 1
11. In-organic manures—their common use—the characteristics—their doses per acre according to crops—time and method of application. 1

Horticulture and Vegetable Gardening

(*i*) Selection of land for fruit and vegetable gardening. 1
(*ii*) Lay out of model orchard and vegetable garden. 1
(*iii*) Planting of an orchard and kitchen gardens. 1
(*iv*) Methods of propagation—sexual and asexual. 2
(*v*) Preparation of nursery beds—raising of seedlings their maintenance—establishment of nursery in each V.L.W. Circle. 2
(*vi*) Rejuvination of old orchard. 1
(*vii*) Tree planting with special reference to Van-Mahotsava and village forests. 2
(*viii*) Flower gardening—how to lay out a park and beautify residences. 2

Plant Protection

(*i*) Common insect pests—locust, aphides, termitor etc., their study and identify them and preventive—and control measures. 1
(*ii*) Preparation of insecticides and fungicides, their use on the crops affected. Handling of machinery for spraying and dusting. 1
(*iii*) Common plant diseases—rust on wheat, smut on jowar, wheat etc., their characteristics and control measures. 1
(*iv*) Common pests of stored grain and their control. 1
(*v*) Disease resistant varieties. 1

1. Group discussion on:
(*i*) Crop cutting trials. 1
(*ii*) How to select a good seed and its treatment. 1
(*iii*) Improvement of seeds by selection, hybridisation etc. 1
(*iv*) Lay out of demonstration plots—points to be kept in mind. Demonstration farms on average holdings. 1

2. Practice in:
(*i*) Preparation of insecticides and fungicides. 1
(*ii*) Handling of Agriculture implements—practicals in ploughing with different kinds of ploughs. 1
(*iii*) Budding and grafting. 1

Extension

1. Duties of Gramsewak.
2. Audio-visual-aids.
3. Various types of demonstrations.
4. Various methods of approach group organisations—leader and follower groups youth organisation, young farmers clubs.
5. Programme planning, fixing targets—preparation of village and family plans.
6. Organisation at different levels.
7. Second Five Year Plan—targets outlay under various heads.
8. Coordination of various Departments at different levels.
9. Social evils—steps to check them.

Public Health

1. Village sanitation.
2. Safe water supply.
3. Different types of latrines.
4. Sanitation in Exhibition and fairs.
5. Contagious diseases—their preventive measures—specially the gramsewaks should be made aware of the germ theory to all sorts of super natural and dictistic powers.

Veterinary

15 days' course.

	Group discussions:
1. Contagious diseases:	
(*a*) Rinderpest	(*a*) Out breaks of contagious diseases.
(*b*) H.S.	(*b*) Control of contagious diseases.
(*c*) Black quarter	(*c*) Diseases prevailing—subject to region—season and animals.
2. Non-Contagious diseases:	
(*a*) Tympany	(*a*) Kind of birds selected for a poultry.
(*b*) Indigestion and diarrhoea.	(*b*) Poultry houses—Rearing and finding of birds.
(*c*) Mastitis.	(*c*) Sanitation.
(*d*) Poultry diseases.	(*d*) Preventive and curative measures of poultry diseases.
(*e*) Sheep diseases:	
(i) Sheep pox.	
(ii) Live fluke.	

3. Key Village Scheme, its progress in Rajasthan:
   (*a*) Artificial insemination centres.
   (*b*) Economic aspect of Gaushala and Pinjrapoles and Gausadans.
4. Housing cattle in rural areas:
   (*a*) Construction of cattle sheds.
   (*b*) To improve or to suggest improvement in already existing sheds if any.

(c) Watering arrangement.

(d) Feeding arrangement—feeding crops available—cultivation of fodder crops.
Balanced ration—a broad outline formula.

5. Practicals:

(a) Dressing of wounds—methods of securing the animals—drenching.

(b) Preparation of mixture—Ointments and lotions.

(c) Demonstration of inoculations and castrations (practice as and when chances occur for the individual).

(d) To visit Veterinary Hospital to look into the working of the Veterinary Hospital to study the medicines and identification of instruments and treating the sick.

Cooperation

Lectures	*Group discussions*
1. Meaning and Principles of Cooperation.	
2. Different types of Cooperative Societies, specially societies suitable for rural areas Multi-purpose, farming, consolidation, credit and thrift, marketing better living, seed stores, Cottage Industries, labour contract milk, Ghee and Fodder supply, embankment.	What type of Societies will be best suited to rural areas and why?
3. Byelaws of Multipurpose Societies with special reference to large size societies.	Success of large size societies as compared to small sized societies.
4. Various forms of credits, essentials of good credit system, Co-operative credit and money lenders' credit. Short, medium and long term credit with reference to purposes.	Money lenders' credit V/S Co-operative Credit.
5. Thrift, its importance and its place in cooperative societies.	
6. How to form Cooperative Societies and to prepare registration papers.	Difficulties in organising Co-operative Societies and their solution.
7. Liabilities and its kinds.	Merits and demerits of limited and unlimited liability.
8. Fixation of M.C.L. of members and societies.	
9. General study of Rajasthan Cooperative Societies Act with relevant rules and notifications.	
10. Rural credit survey reports and its main recommendations.	State partnership and linking of credit with marketing.

11. Procedure with regard to:
    (*a*) Admission and Expulsion of members.
    (*b*) Issue and supervision of loans.
    (*c*) Borrowing from central Bank.
    (*d*) Amendment of Byelaws.
    (*e*) Amalgamation of societies.
12. Financial and Administrative set up of Cooperative Movement in Rajasthan.
13. Role of Cooperation in C.D. and N.E.S. Areas. — Group discussion.

    Note: 2 days reserved for visit of successful Cooperative Societies of the area.

(2). For the desert areas the following additional subjects have been included:

1. History of sheep and sheep breeds and breeding.
2. Anatomy and Physiology, Dentition.
3. Sheep diseases and its control and parasities, external and internal.
4. Purchase and care of rams, mating of sheep.
5. Care and management of the ewe lambing, lamb marking, wearing.
6. Shearing, Crutching, Wigging.
7. The blowily, mules operation.
8. Vegetable matter in wool.
9. Structure of the sheep's skin, structure and growth of the wool fibre.
10. Properties of wool and wool goods.
11. Types spinning quality and yield.
12. Wool classing in general, principles of classing, size of clip.
13. Classing various clips, suggested limes etc.
14. Gross breeding various breeds used. Fattab production sheep classing.
15. Shearing sheds and yards, dips and dipping.
16. Sheep skins, fell mongering, carbonising scouring, drying and marketing of wool, manufacture of wool.

The above syllabus only serves as a basis for drawing up detailed programme for each camp by adjustments in the light of the problems that are raised by the participants after a free and frank discussion on the first day.

The Development Commissioner or in his absence, the Dy. Development Commissioner, Senior, has also started attending these camps at least for a few hours to discuss with the Gramsewaks their problems and difficulties. One ession is devoted to this work and the Gramsewaks are allowed to have their full say and make suggestions for improving the Block administration. This has proved useful and has given the Development Commissioner and the Headquarters to understand their problems.

5. The following participate in the camps:
    (1) One or two divisional officers,
    (2) All district level officers,

(3) A few selected Block Development Officers and Extension Officers, and

(4) Sometime a subject-matter specialist available in the area is also invited to give a talk. The participants are expected to spend a night with the campers.

The camps are managed by the Gramsewaks themselves.

6. The Director of Training is responsible for technical supervision of the work of the team. The members of the team submit a note, after the completion of each course, of the points raised by the participants. Such of the points as are of practical importance for other blocks are circulated along with the solutions suggested. Some of these points, which need advice of the subject-matter specialists are referred to them for suggesting possible solutions. The members of the team, each in his individual manner, also assesses the aptitude of and interest evinced by the trainees in the programme and the report of such assessment is considered at the time of their promotions.

II

WORKING AND SET UP OF AGRICULTURE DEPARTMENT IN BIHAR

Prior to the starting of the N.E.S. and C.D. Blocks, the Department of Agriculture in this State used to cater to the needs of cultivators all over the State. With the opening of the N.E.S. and C.D. Blocks, the Department has concentrated its attention on the agricultural problems pertaining to each individual block and is endeavouring to meet the demand of agriculturists therein. In order to bring about all round improvement in agriculture particularly in the N.E.S. and C.D. Blocks the Department has developed three main wings for its working. These are (*i*) Agricultural Research, (*ii*) Agricultural Education, and (*iii*) Agricultural Extension Wing.

Apart from these three, the enforcement of Bihar Weights Act forms a part of the functioning of this Department and there is a separate section which pushes up the use of standardized weights and measures in the State.

Agricultural Research

The Research Section carries on researches with a view to solve the main agricultural problems of the State. Both crop-wise and regionwise researches are conducted by the Department because of diversities in climatic conditions and also in farming practices. Four Regional Agricultural Institutes have been started and they are located at Patna, Pusa, Sabour and Kanke. Each Regional Institute is headed by a Director and all the Research Sections and Stations falling within the region have been placed under him. There is a Director of Agricultural Research at headquarters to coordinate agricultural researches and work at all Regional Institutes.

As for crop-wise researches the following sections are in existence:—

(*a*) Botanical section under an Economic Botanist for conducting researches on improving the seed of rice, maize and millet, oil seeds, pulses and other cereals, tubers and cotton.

(*b*) Entomological section headed by an Entomologist for research on prevention and control of insects and pests of crops.

(*c*) Plant Pathological section under a Plant Pathologist for researches on prevention and control of diseases of plants.

(*d*) Agricultural Chemistry section under an Agricultural Chemist for taking measures for improving and maintaining soil fertility. Soil survey, for demarcating the main soil types of the State, has also been taken up by this section.

(*e*) Agronomy section under an Agronomist for evolving improved farming practices of crops and grasses, for which agrostological work has been started.

(*f*) Horticultural section under Horticulturist for conducting researches on growing of fruits and vegetables and also for preparing and preserving of vegetable and fruit products.

(*g*) Agricultural Engineering (Research) section under an Agricultural Engineer (Research) for carrying on researches to produce improved agricultural implements and tools.

(*h*) Irrigation Research section for finding out the proper use of irrigational water.

(*i*) Fisheries research under a Fisheries Biologist has been initiated for conducting researches on measures for promoting the production of fish.

There are two other major Research sections, both tackling research and developmental aspects. The first is the Sugarcane Research and Development wing under the Director of Sugarcane Research located at Pusa. This section has a large number of officers and staff for developing sugarcane production in the State by conducting researches and carrying the results of the researches to the doors of the cane-growers. The Second wing is that of Field Experimental Services under the Field Experiment Specialist which deals with the problems of finding out the manurial requirements of different soils and crops by conducting large number of experiments on cultivators' fields.

The research programme of the different regions are drawn up by specialists in each fields and are considered by working parties constituted for each subject, in which the Deputy Director of Agriculture representing the extension services are also members. The programmes are then submitted to the State Research Programme Committee consisting of the Director of Agriculture, Director of Agricultural Research, Director of Extension Services, Regional Directors and other Specialist officers for examination and approval. The Deputy Directors of Agriculture are also members of the State Research Programme Committee and they provide the necessary link between research and extension. The Committee meets twice a year for considering Kharif and Rabi programmes respectively. There is also a 'Crop Varieties Advisory Committee' at headquarters, which scrutinises and approves recommendations of research such as improved varieties, improved cultural and manurial practices and other improved techniques, before they are passed on to extension.

Agricultural Education

There are two Agricultural colleges—one at Sabour and the other at Ranchi, 17 Agricultural Schools—one in each district, and 4 Extension Training Centres one in each range, for imparting agricultural education to the farm youths. There is also one Horticultural Training school to turn out Horticultural Inspectors for Horticulture Development work and five schools for training of Malis. The Agricultural Colleges provide for the superior staff engaged in extension and research work. The Agricultural Schools provide for the training of would be village level workers and future Agricultural leaders of the villages and the Extension Training Centres are the places where the trainees from the Agricultural Schools are given the final touches for turning them out into useful village level workers. The Government pay a stipend of Rs. 20/- to each student at the Agricultural School and Rs. 40/- to each student at the Extension Training Centres. A similar stipend is paid to the trainees of Horticultural Training School.

There is a Deputy Director of Agricultural Education who guides the working of these educational institutions.

Agricultural Extension

This wing of the Department engages itself in bringing the scientific methods and results of scientific researches to the doors of the cultivator and assists him in adoption of improved farming practices on his fields. The department has a Director of Extension Services at headquarters who coordinates and guides the work of different branches of extension. He is also assisted by Agricultural Planning Officer and Agricultural Economist stationed at

headquarters. A Deputy Director of Agricultural Statistics is also going to be appointed shortly.

(*a*) *General extension*—The State has been divided into four ranges, and each range is under the control of a Deputy Director of Agriculture. Each district has a District Agricultural Officer with a Sub-divisional Agricultural Officer under him in each Sub-division. Each Sub-divisional Agricultural Officer has Agricultural Inspectors, Work Sarkars, Field Assistants and Kamdars to assist him in executing the programme of agricultural development. The Extension Officers guide and supervise the Agricultural activities in the National Extension Service and Community Development Blocks each of which has an Agricultural Extension Supervisor and a Horticultural Mali. They are all engaged in popularising good seeds of crops, vegetables and fruits, manures, chemical fertilizers, improved implements and improved farming practices. They also execute medium and several types of minor irrigation schemes with the assistance of an Assistant Agricultural Engineer posted in each range and Engineering Supervisor, Engineering Overseers and Well Boring Supervisors at district and sub-divisional levels.

In order to impress upon the cultivators the usefulness of scientific farming and also for production of pedigree seeds, a Sub-divisional farm has been provided in each Sub-division and in order to speed up coverage by improved seeds, 25 acre seed multiplication farms are being opened in every N.E.S. and C.D. Block. Use of fertiliser is also being popularised in full coordination with Credit Agricoles and Cooperative Societies. Use of improved implements is being popularised through their sale on subsidised basis and by conducting free demonstrations on a large scale, specially in the Blocks.

The entire agricultural extension work in the blocks is conducted on the basis of a plan and a programme of work is followed. The planning and programming for the block, the village level worker Halkas and each village is done by the extension staff in consultation with the active cooperation of the cultivators at the various levels.

(*b*) *Subject Matter Extension*—Subject Matter Specialists are engaged in bringing about coordination between research and extension wings of the Department. These specialists are primarily meant to attend to the problems of cultivators, solutions for which are known, to find out such problems which can be solved by them on the spot and also to bring to the Research Section those problems which require researches to be conducted and solution to be found out. These Subject Matter Specialists keep, therefore, in constant touch with the extension as well as the Research Officer.

The State Subject Matter Specialists are as noted below :—

1. Agricultural Engineer for planning and guiding execution of irrigational schemes including borings. Distribution of improved agricultural implements and machines is also looked after by him.
2. Field Experimental Specialist, with a set of staff distributed all over the State for advising on the manurial schedules for different types of soils and crops.
3. Deputy Director of Agricultural Marketing for attending to marketing problems of agricultural produce.
4. Plant Protection Officer with adequate number of field staff to fight and to prevent major outbreaks of diseases of insect pests.
5. Fishery Development Officer for popularisation and improved management of inland fisheries.
6. Compost Development Officer for guiding and manufacturing different kinds of compost.

7. Horticultural Development Officer for attending to problems connected with horticultural development work and to help in proper plantation of orchards.
8. Jute Development Officer for popularising the proper cultivation of jute in jute growing areas.
9. Cane Development Officer with his Assistant Director for propagation of improved varieties and cultural practices in sugarcane crops.

At the Range level, the Deputy Director of Agriculture has two Assistant Agricultural Engineers for irrigational schemes and borings, an Assistant Fisheries Development Officer for Fisheries Development work, a Horticultural Inspector for Horticultural Development work, a Compost Development Assistant for compost development work, and an Assistant Plant Protection Officer for conducting plant protection operations. A unit of Subject Matter Specialists has been provided at each District level also which consists of the following :—

1. A Senior Agronomical Assistant.
2. A Senior Horticultural Assistant.
3. A Senior Chemical Assistant.
4. A Senior Botanical Assistant.
5. A Plant Protection Inspector.
6. An Agricultural Marketing Inspector.
7. A Fishery Inspector.
8. A Mechanic.
9. A Jute Inspector (in jute growing areas).
10. A Lac Inspector (in lac growing areas).

These Subject Matter Specialists visit the blocks to study local problems, to find out the solutions and also to bring the result of researches to each block staff and village leaders and educate them. They also carry the problems of cultivator to the Research sections for finding out their solution. Thus a two way traffic is maintained by them.

Apart from these Subject Matter Specialists, a team of Instructors has been provided at each Range headquarters. It consists of an Instructor in Agronomy, an Instructor in Chemistry, an Instructor in Plant Protection and an Instructor in Agricultural Engineering and a Fruit Preservation Instructor. They go round to each block and give theoretical and practical training to the village level workers and village leaders so as to keep their knowledge up-to-date in respect of improved agricultural practices. Extension Supervisors and other extension officers are also regularly sent for Refresher Courses organised in Agricultural College with a view to brush up their knowledge of Agriculture.

Besides this, efforts are being made to impart agricultural training to Agricultural Project Leaders in each village by organising training courses in each village level workers' halka. This work is being taken up now and it is expected that 3 to 4 Agricultural Project Leaders will be trained up in each village of a Block.

(c) *Agricultural Information Extension*—The Department has organised an information service for educating the people on mass scale through the help

of bulletins, charts, exhibitions, meetings, radio talks and cinema shows. At the State headquarters, there is an Agricultural Information Officer with the staff and printing machines for producing literatures. There is an Agricultural Publicity Officer at each Range headquarter with complete equipments for holding exhibitions and conducting publicity through Audio Visual Aids.

Close supervision of agricultural work in the blocks has been ensured by adoption of a schedule of inspections for all the officers of the Departments. Apart from these measures of extension from official side, efforts have been made to take help and cooperation from progressive and enthusiastic farmers of the State in development of Agriculture particularly in N.E.S. and C.D. Blocks. A farmers' Forum has been organised at the State level and branches of this are being opened in every district. In the N.E.S. and C.D. Blocks, Farm Youth Clubs are also being opened and dissemination of measures of Agricultural improvement is being obtained through them.

III

PREPARATION OF A WORKING PLAN FOR AGRICULTURAL DEVELOPMENT PROGRAMME FOR A VILLAGE—BOMBAY STATE

In order to achieve best results, and implement the Agriculture Development Programme successfully, it is necessary to have a working plan for each village in a block. This is necessary because local conditions obtaining in a village and its needs would differ from those of the block as a whole. Besides the working plan for a village would create interest among villagers for planning their own development programme and effectively executing the same through their own organisation and would also serve as a useful data to any visiting official expected to give technical advice and help to the villagers. The working plan for a village should therefore be prepared after considering local needs and interests in consultation with the villagers and the Agricultural Officers.

Like the working plan for a block, the working plan for a village should also be divided into three parts. Part I should indicate, in general, existing features of the village, nature of people's attitude to improvements in general and physical possibilities in the area. Part II should deal with each of the ten points indicated in paragraph I of Government Circular No. AGR-2457-S, dated the 13th March 1957. Under each item, brief description should be given regarding existing conditions, programme proposed to be followed in future, methods proposed to be adopted for demonstrating and popularising the idea. Part III should contain three statements as indicated below, giving information concerning the programme in nutshell.

Statement I —Statistical information in the base year.

Statement II—Methods of improvement proposed and additional production per acre or other unit expected on the basis of experimental results obtained by the Agriculture Department.

Statement III—Agricultural production programme indicating targets and additional production expected in three years.

(*Proforma* for these statements are attached).

These plans should be prepared in local language, in triplicate, one copy being kept in the village, second with the Gram Sewak, and third in the block/project office. These plans should be constantly examined, discussed with the villagers, and reviewed periodically whenever officials visit the villages concerned.

STATEMENT I.

Statistical Information in the "base year"—

1. GENERAL—

   (*i*) Name of the State ..
   (*ii*) Names of the village and the Block ..
   (*iii*) Type of Block (C.D./N.E.S.) ..
   (*iv*) Year of allotment ..
   (*v*) Location of Village: District Tahsil ..
   (*vi*) Block Headquarters ..
   (*vii*) Area of Village (acres) ..
   (*viii*) Distance from the village to Block headquarter ..
   (*ix*) Population (Census figures): ..
   Total (No.) ..
   Adult male (No.) ..
   Adult female (No.) ..
   (*x*) No. of families in the Village ..

2. OCCUPATIONAL DISTRIBUTION OF POPULATION—

   Agriculturists—

   (*a*) Owner cultivators (No.) ..
   (*b*) Non-cultivating (No.) owners ..
   (*c*) Agricultural labourers (No.) ..

3. SOIL AND LAND UTILISATION (from revenue records)—

   (*a*) Nature of soil ..
   (*b*) Total area— ..
   (*i*) in sq. miles ..
   (*ii*) in acres ..
   (*c*) Net sown area (acres) ..
   (*d*) Area sown more than once (acres) ..
   (*e*) Total crop area (acres) ($c+d$) ..
   (*f*) Current fallows (acres) ..
   (*g*) Area under forests (acres) ..
   (*h*) Cultivable waste land (acres) ..
   (*i*) Barren and uncultivable land (acres) ..

4. RAINFALL AND IRRIGATION (Administrative and Revenue reports)—

   A. Rainfall—

   (*i*) Annual (inches) ..
   (*ii*) Seasonal i.e. during crop season (inches) ..
   (*iii*) Level of water table (feet) ..

   B. Irrigation—

   (*i*) Wells ..
   (*ii*) Tubewells ..
   (*iii*) Tanks ..
   (*iv*) Canals (miles) ..
   (*v*) Other sources (specify) ..
   Net area irrigated (acres) ..
   Area irrigated more than once (acres) ..
   Gross area irrigated (acres) ..

5. AGRICULTURAL PRODUCTION AND TRADE **(Revenue records and crop experiments in the past)—**

(a) Names of Crops	Area under Corps (acres)		Yield per acre (lbs.)	
	Irrigated	Unirrigated	Irrigated	Unirrigated
1	2	3	4	5
1. Rice				
2. Wheat				
3. Gram				
4. Cotton				
5.				
6.				
7.				

(b) Names of Crops	Season of			Please indicate whether major portion of the crop is exported or consumed internally
	Sowing	Harvesting	Marketing	
1	2	3	4	5
1. Rice				
2. Wheat				
3. Gram				
4. Cotton				
5. Oilseeds				
6.				
7.				
8.				

6. AGRICULTURAL PRACTICES—

Fertilizers and seeds	Quantity used per year (maunds)	Crops for which used
1. Seeds—		
(i) Paddy		
(ii) Wheat		
(iii) Jowar		
(iv) Bajra		
(v)		
(vi)		
2. Fertilizers—		
(i) Ammonium sulphate		
(ii) Superphosphate		
(iii) Other chemical fertilizers		
(iv) Oil cake		
(v) Town compost		
(vi) Farmyard manures		
(vii) Miscellaneous		
(viii) Green manuring		

7. Co-operative Societies—

Type of Co-operative Societies	No. of members enrolled	No. of villages covered	Annual turnover
Co-operative credit society			
Co-operative farming society			
Marketing co-operative society			

STATEMENT II.

Methods of improvement proposed and additional production per acre or other unit expected on the basis of experimental results obtained by the Agricultural Department.

Sl. No.	Item of improvement	Recommendation per acre or other unit, if any	Total area physically suitable for the purpose	Additional production expected per acre	Number of demonstrations proposed		
					Year	Year	Year
1	2	3	4	5	6	7	8
	1. Use of improved seeds—						
	(*i*) Paddy—						
	(*a*) ....(varieties)						
	(*b*) .... Do.						
	(*ii*) Jowar—						
	(*a*) .... Do.						
	(*b*) .... Do.						
	(*iii*) Wheat—						
	(*a*) .... Do.						
	(*b*) .... Do.						
	(*iv*) Other crops—						
	(*a*) .... Do.						
	(*b*) .... Do.						
	2. Manure—						
	(*i*) Ammonium sulphate ..						
	(*ii*) Superphosphate ..						
	(*iii*) Other chemical fertilizers ..						
	(*iv*) Compost ..						
	(*v*) Farmyard manuring ..						
	(*vi*) Night soil manuring ..						
	(*vii*) Green manuring ..						
	3. Irrigation—						
	(*i*) Area brought under irrigation newly (all types) ..						
	4. Improved practices of cultivation—						
	(*i*) Full or partial Japanese methods of cultivation. Crop ..						
	(*ii*) Dibbling of paddy, K. Jowar, R. Jowar and Wheat ..						
	(*iii*) Dibbling of groundnut ..						
	(*iv*) Wider sowing of K. Jowar and R. Jowar ..						
	(*v*) Wider planting of sugarcane ..						
	(*vi*) Intensive cultivation combined all practices, seed fertilizers, use of improved implements etc. ..						

Block :

STATEMENT III.

Agricultural Production Programme indicating targets and additional production expected in three years.

Sl. No.	Item	Targets aimed			Area to be covered in acres			Expected additional production			Supplies required			Funds required			Sources of funds				Remarks
		1957-58	1958-59	1959-60	1957-58	1958-59	1959-60	1957-58	1958-59	1959-60	1957-58	1958-59	1959-60	1957-58	1958-59	1959-60	Dept.	CDB.	Co-op.	People	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
		Acres	Acres	Acres	Acres	Acres	Acres	B. Mds.	B. Mds.	B. Mds.	B. Mds.	B. Mds.	B. Mds.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
	I. Seeds—																				
1	Paddy Krishnasal-BK 70 ..																				
2	Akola Bajari																				
3	Kharif Jowar																				
4	Rabi Jowar																				
5	Kenphad Wheat ..																				
6	Gram Chaffa																				
7	Groundnut																				
8	Cotton																				
9	Tobacco																				
10	Safflower																				
11	Mug																				
12	Maize																				
13	Nagali																				
14	Potatoes																				
15	Sugarcane																				
	II. Manures—																				
	Chemical Fertilizers—																				
1	Nitrogenous (In terms of N_2 lbs.)																				
2	Phosphatic (In terms of P_2O_5 lbs.)																				
3	Potash (In terms of K_2O)																				
4	Compost (In tons)																				

STATEMENT III—*contd.*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
5	F.Y.M. (In pits) (10′×6′×3′)	..																			
6	Urine manures (pits)																				
7	Night soil (in terms of Gopuri latrines)	..																			
8	Town compost ..	..																			
9	Green manuring	..																			
III.	Irrigation—																				
1	Bandhara ..	..																			
2	Tank ..	..																			
3	Tube well ..	..																			
4	New Wells ..	..																			
5	Repairs to old wells	..																			
6	Pumping sets ..	..																			
7	Canal ..	..																			
IV.	Improved practices of cultivation—																				
	(*i*) Full or partial Japanese method of cultivation. Crop ..	..																			
	(*ii*) Dibbling of paddy, K. Jowar, R. Jowar and wheat ..	..																			
	(*iii*) Dibbling of groundnut																				
	(*iv*) Wider sowing of K. Jowar and R. Jowar																				
	(*v*) Wider planting of sugar-cane ..	..																			
	(*vi*) Intensive cultivation combined all practices seed, fertilizers, use of improved implements, etc.																				
V.	Plant Protection—																				
	(*i*) Insecticides in lbs.	..																			
	(*ii*) Fungicides	..																			
	(*iii*) Weedicides	..																			
	(*iv*) Rhodenticides	..																			

STATEMENT III—*contd*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
VI.	Soil Conservation—																				
1	Ploughing weed infested lands																				
2	Cultivation of cultivable fallow																				
3	Ploughing with moundboard plough																				
4	Levelling																				
5	Strip cropping																				
6	Contour bunding ..																				
VII.	Horticulture—																				
1	Mango (trees)																				
2	Banana																				
3	Tamarind																				
4	Citrus																				
5	Grapes																				
6	Pomegranates																				
7	Figs																				
8	Guavas																				
9	Cashew nuts																				
10	Pine apple																				
VIII.	Vegetable—																				
1	Leafy vegetables ..																				
2	Root, bulbs and tuber vegetables																				
3	Pod and fruit vegetables ..																				
IX.	Poultry—																				
1	Production of eggs (dozen)																				

IV

INTEGRATION OF GRAIN LOANS WITH CO-OPERATIVE CREDIT SYSTEM IN ORISSA

In 1953 a scheme, known as the grain gola scheme, was introduced in the district of Bolangir. It envisaged the organisation of big and viable co-operative societies for groups of 5 to 10 villages. The grouping followed the demarcation of gram panchayats under the Orissa Gram Panchayat Act. The share capital of the society was held in the form of grain as well as cash and loans of both kinds were issued. Emphasis was, however, placed on loans in kind. Each society was provided with a godown with a storage space of about 2,000 mds. This godown was known as grain gola and the scheme got its name from it. Each society was required to employ a paid and trained Secretary. The liability of the members was limited. The gram panchayat, that is, the local authority having jurisdiction over the group of villages, was required to participate in the share capital and to deposit its surplus funds with the society. This arrangement was mutually advantageous as it provided the society with some working capital and the panchayat was able to make some income from its surplus. The object was to maximise the utilisation of local resources of grain and cash. The society was utilised for distributing improved seeds and multiplying the same in the villages for future use. Most of the gram panchayats in this district have 25 to 50 acres of good paddy land of their own. These lands are leased out to reliable cultivators for the multiplication of improved seeds. One-fourth of the produce is payable under the terms of the lease and the payment has to be in the shape of grain fit for use as seeds. The improved seeds so raised and collected are deposited in the society by the panchayat and made available through it to the cultivators in the form of loans. The rate of interest was fixed at 25% which was half of the rate prevailing in the area for grain and seed credit. This may appear high as compared to the rates charged on cash loans. But it must be remembered that in regard to grain credit a considerable allowance will have to be made for factors such as dryage, wastage and price fluctuations. This scheme proved to be very popular and soon demands were made for its extension to other districts.

It was at this juncture that the Rural Credit Survey Committee published its report. The Government of Orissa were glad to find that some of the main features of the grain gola scheme, the emphasis on economic size, limited liability, supply of loans in kind, financial participation of governmental agencies and the employment of a paid and trained Secretary had found place in the recommendations of the Committee. They also found that the data collected during the survey in three districts of the State confirmed their appreciation of the rural economy. The survey has revealed that grain loans occupy an important place in the economy and that credit transactions in kind are very significant in terms of the number of borrowers as well as the relative value of borrowings. More than 30% of the cultivating families questioned during the survey reported borrowings in kind. The estimated value of total borrowings in kind during the year exceeded 10% of the correspondings in cash. In one district, Sambalpur, it was over 60%. This tendency is not limitedto borrowing only. The figures of current farm expenditure collected during the survey indicated a definite preference for transactions in kind in two districts as given below :

Name of district			*Current farm expenditure*	
			In cash	*In kind*
			(Rs. per family)	
1. Sambalpur	..	..	157	178
2. Puri		..	117	109
3. Koraput	..	..	106	133

What are the main features of grain credit and why is it so popular in Orissa ? Grain loans are almost entirely of short duration and rarely go beyond 8 or 9 months. If any, only a small portion is outstanding for more than one year. The purposes for which these loans are taken are therefore limited to family consumption, seeds and payment of farm expenses in kind. This kind of credit cannot obviously meet the medium term and long term needs of the cultivator, such as bullocks and land improvement works. It cannot also provide the necessities of the cultivation of cash crops. Its present popularity over money credit appears to be the direct result of the prevailing pattern of cultivation in the State. Paddy is almost the sole crop in most districts and the cultivation practised is more of the extensive rather than of the intensive kind. The demand for money credit will rise in step with the diversification of the crop pattern and the adoption of intensive cultivation. This tendency has already become noticeable as a result of better irrigation facilities and agricultural extension programmes.

Although there is no doubt that the future lies in the direction of more and more money credit it does not appear realistic to altogether ignore the present preference of the cultivators for grain credit. Any programme of development of rural credit should take account of both, and should not patronise one to the exclusion of the other. For one thing there are still vast areas which cry for grain credit but have not been provided with. For another it is wise to build the plans of the future on what exists at present. The future programme should therefore provide for two things : extension of grain credit to the optimum and the pumping of increased quantities of money credit into all suitable areas. This means that the existing institutions providing grain credit should be strengthened and new ones established where none exists. Simultaneously arrangements must be made to supply money credit in such a manner that will not conflict or interfere with the operation of grain credit institutions. After all, predominance of grain credit is but a stage in the evolution of credit. It therefore appears natural that the institutions dealing in grain credit should in time develop wings for purveying money credit. It is with this aspect in mind that the Government of Orissa selected some of the grain gola societies of Bolangir district for the pilot project which was designed in 1955-56 for trying out the recommendations of the Rural Credit Survey Committee.

At this stage we may take note of the progress of the societies of the pilot project and consider whether they have any lessons to offer. 25 grain gola societies of Bolangir were selected for the project. Government contributed Rs. 10,000/- to the share capital of each of these societies. This enabled them to issue for the first time cash loans, short-term as well as medium-term. Most of these societies had been organised under the grain gola scheme. Three only were existing from before. They were on the basis of unlimited liability. Their constitution was changed to conform with the scheme. The progress made by the societies in the matter of membership, share capital and deposits from year to year may be seen from the Statement given below.

Year	Number of Societies.	Number of Members.	*Share Capital* Cash. Rs.	Paddy Mds.	Deposits Paddy. Mds.
1953—54	23	2903	2635	2358	7073
1954—55	25	5776	6315	8122	21692
1955—56	25	8603	303881	7778	27339
1956—57 (upto 31.12.56)	25	8908	306806	8171	26805

Grain Golas are very necessary for rural credit in tribal areas. In the Central and State sectors of the plan, there is provision for starting 435 grain golas in backward areas. There is still a considerable gap to be covered.

It is proposed to start 50 more grain golas. The cost on account of the additional grain golas for 1957-58 is estimated at Rs. 1·05 lakhs and for 1957-61 Rs. 5·55 lakhs. The total cost of grain golas scheme would rise to Rs. 14·00 lakhs from Rs. 8·45 lakhs as a result of inclusion of these additional grain golas.

Grain Golas.

(*i*)	Buildings	Rs. 6,500/-
(*ii*)	Paddy 500 mds.	Rs. 3,500/-
(*iii*)	Contingencies	Rs. 228/-
(*iv*)	Pay of Salesman @ Rs. 20/- p.m. for 4 months.	Rs. 80/-
(*v*)	Pay of Watchman @ 17/8/- p.m. for 11 months.	Rs. 192/-
		Rs.10,500/-

For 50 Golas (including cost of repairs and recurring charges) Rs. 55,000/-.

The phasing of expenditure will be as follows :—

(*Rupees in lakhs*)

1957—58		1958—59		1959—60		1960—61		1957-61	
Cost	Target	Cost	Target	Cost	Target	Cost	Target	Cost	Target
1	2	3	4	5	6	7	8	9	10
1.05	10	1.10	10	1.15	10	2.25	20	5.55	50

An attempt has been made to analyse according to the purposes the loans given upto 31-12-56 from the date of the inauguration of the pilot project. The results of the analysis are given in the statement below :—

(From 1.4.56 to 31.12.56)

Short term loan			Medium term loan.	
Paddy loan				
Seeds	Agrl. Farm expenses	Total	Cash loan	Purchase of bullocks
Mds.	Mds.	Mds.	Rs.	Rs.
19,912	12,970	32,882	202,275	120,275

Short term loan	Medium Term Loan.	
Improvement of land.	Other purposes	Total
Rs.	Rs.	Rs.
73,020	7,780	201,075

Attempts have also been made to ascertain whether the crop loan system followed by these societies has produced the desired results and whether the borrowers have utilised the loans taken for the purposes for which they were given. An enquiry was made to verify the expenditure. In some societies the verification was 100 per cent. It was found as a result of this enquiry that the loans were properly utilised on an average in 86.5 per cent of the cases. The lowest being 60 per cent in the case of one society. In two instances the percentage of proper utilisation was above 90 per cent. With a view to see whether in the matter of distribution of loans the small and medium cultivators have had their legitimate shares, a study has been made of all the loan applications which reveals that a large majority of borrowers belonged to the class of small and medium cultivators.

Serious objections have been raised to the combination of grain credit and money credit in the same institution and the Government of Orissa have been advised to separate the two. In other words, the grain gola societies included under the pilot project have been required to dispose of their grain stocks and confine their share capital and future loan transactions to cash. It has not, however, been denied that there is need for stocking grain in the village and the short-term loans for the purpose of seeds, consumption and farm expenses should continue to be given in the form of grain. It has been suggested that the stocks may be physically kept in the godown of the large-sized credit society but held by it as agent of the regional marketing society to which it will be affiliated for marketing and supply functions. The accounts of the credit society will be kept in terms of money and all loans will be in terms of cash. When grain is supplied against these cash loans, it will be accounted for as sale on behalf of the Regional Marketing Society. The reasons for such an apparently round-about procedure are as follows:—

(*a*) Holding of grain stocks on its own by way of share capital and deposits and the issue and collections of grain loans in the straight form will lay the credit society open to serious risks which may in certain circumstances endanger the very stability of the society and the credit superstructure consisting of the central banks and the apex banks. Grain may deteriorate in storage. It is liable to damage from rodents and easy pilferage from human beings. Losses may accrue due to fluctuations in prices.

(*b*) If a part of the assets of the society is kept in the form of grain it will not be easy to form a correct estimate of the value of the assets of the society for the purpose of fixing and administering the borrowing limits. Correct value can be fixed only after physical verification of stocks and this cannot be done as often as it becomes necessary. There can be no certainty about the value between one verification and another. For, due to the risks mentioned at (*a*) value of the stock may drop to a dangerously low level almost without any one knowing it.

It may be admitted that the difficulties outlined in the above para are not unreal and that in the interest of a stable and efficient credit structure they should on no account be minimised. But the question is whether those difficulties are insurmountable or whether the risks can be safeguarded against to a reasonable extent in the same manner as risks in commercial ventures are guarded against through accounting, financial and administrative devices. Moreover, it has to be considered whether it is prudent to abandon the simpler and straighter form of grain credit which is popular and clearly understood by the people in favour of a round-about system with attendant and administrative complications. The key to an answer to this question lies in the possibility of providing satisfactory safeguards for the risks that go with grain credit.

Before we consider what safeguards are necessary and possible it would be useful to state why the continuance of the present system in which grain credit and money credit are combined in one institution at the primary level is being advocated. Combination has the following considerations to commend it.

(*a*) It has already been said that the scope of grain loans is limited to certain short-term needs and the future points to more and more cash loans. But the transfer of the borrowers' preferences from grain loans to cash loans should be brought about smoothly and in complete harmony with the changing emphasis in their cropping practices and pattern of cultivation. When the demand for money credit arises it should not be necessary for the borrowers to go in search of some other institution.

(*b*) If there is only one credit institution at the primary level there will be better enforcement of credit limits and the dangers of over-lending will be under control. If a cultivator becomes member of one institution for grain credit and that of another for money credit difficult problems of coordination arise. This may result more often than not in over-lending.

(*c*) Grain credit and money credit being mutually complementary should subsist together. The former will, in the conditions of Orissa, answer in large part of the short-term needs while the latter can be utilised largely for meeting the medium-term needs. This ensures the maximum utilisation of scarce resources and promotion of local savings.

(*d*) Collection of grain either for initial share capital or for repayment of loan is comparatively easier than collection of cash. At any rate the people understand the former method better and as the survey has already shown the people in the region are more at home with transactions in kind. Success of a co-operative technique depends upon the understanding and willing participation that it can elicit from the members. In fact, such techniques should be employed as can be understood and followed by the members. It is not good to make light of their preferences and impose a complicated system much beyond their comprehension.

(*e*) The entire State is expected to be covered by National Extension Service Blocks by the end of the Plan. Great hopes have been laid on the success of the agricultural extension programmes in the blocks for achieving the increased targets of agricultural production that have been fixed in the Plan. The Planning Commission and the economists have made it very clear that the clue to the success of the Plan lies in increased production of food and other agricultural commodities. Agricultural credit plays a very important part in the achievement of these targets of production. It is therefore of urgency and importance that in every National Extension Service Block that has been opened or is likely to be opened in the years to come adequate credit facilities must be provided. This cannot be done if we confine ourselves to the programme of organisation of large-sized credit societies on the pattern recommended by the Reserve Bank of India. For, with the existing provision in the Plan no more than 500 such societies can be established during the 5-year period. They will cater to 2500 to 5000 villages at the most. If they are distributed evenly over all the N.E.S. blocks each block will get no more than three while its requirement is 10 or more. So some other method of covering the remaining portions of the blocks will have to be found. It is in recognition of this situation that the Planning Commission in consultation with

the Ministry of Agriculture and the Reserve Bank of India have recommended that the existing societies should be strengthened. Most of the existing societies are uneconomic in size. Several of them are on unlimited liability basis. The question is whether it is prudent to strengthen these societies although it has been decided to lay increasing emphasis on societies of larger size and with limited liability. It is perhaps not wise to do something which will go against the accepted trend of future development. On the other hand, it will be better to organise such societies as can eventually be raised to or converted on the agreed pattern when funds and other facilities become available. With the existing popularity of grain credit and the clear possibility of a smooth conversion into large-sized credit society of the conception of the Reserve Bank of India, the grain gola society of Bolangir will be an ideal type for the interim period. It will not create great pressure on the monetary resources at the disposal of the State Government and the Reserve Bank.

(*f*) There are already more than 1200 grain gola societies.

In some districts like Bolangir, Dhenkanal and Sundargarh, all the villages have been covered by these societies. In others attempts are being made to cover the N.E.S. blocks first. It is expected that by the end of 1957-58 all will be covered. The point is whether the institutions which have already been organised and which have made their way into the hearts of the people should now be confined in their activities to only a small sphere of agricultural credit and new institutions created with over-lapping jurisdiction and insufficient economic justification ; or whether these institutions should be taken advantage of for distributing the much-needed money credit in supplement to the grain credit already being given.

It may now be considered what safeguards are necessary in the event of combination of money credit and grain credit in one institution. The safeguards may be of two kinds, administrative and financial. Administrative safeguards are meant to prevent or reduce to the minimum the occurrence of losses due to storage, dryage and pilferage. The Financial safeguards are meant to provide a cushion for the shocks resulting from losses that could not be prevented by administrative safeguards or that have occurred due to reasons beyond any one's control, such as price fluctuations. From the administrative point of view it is absolutely essential to provide the co-operative societies with the services of paid and trained staff, and to ensure close supervision and frequent inspection. The grain gola co-operative has a goladar-cum-secretary, who is a paid and trained hand. In the first two years when the income of the society is not likely to be appreciable the secretary of the gram panchayat functions as the secretary of the society. During this period he is paid out of the funds of the gram panchayat. As the income increases and becomes sufficient to pay a whole-time employee the society entertains its own secretary. Adequate arrangements have been made for training secretaries. The Orissa Co-operative Union conducts two courses a year, each of a duration of six weeks for training the secretaries of gram panchayats and goladars of societies. Every year more than 150 persons are being trained in this manner. After a period these secretaries are required to go through the six months' course at the Subordinate Co-operative Officers' Training Institutes, Cuttack and Sambalpur. This intensive training is arranged according to a phased programme. The idea is to ensure that the secretaries complete this training by the time the gola societies become ripe for handling larger doses of money credit and begin to function as large-sized credit societies on the scale and pattern approved by the Reserve Bank of India. As regards supervision and inspection the arrangements are as follows : there is one Co-operative Inspector in every N.E.S. block which on the average

consists of 10 gram panchayats and hence 10 societies. It has been decided to carve out inspectorates on this basis even in advance of the opening of N.E.S. blocks. The recruitment and training of personnel for manning these inspectorates are going on apace. Besides, in the Gram Panchayat Department there are Supervisors and Audit Inspectors, one for every 25 to 30 gram panchayats. A co-ordinated programme of inspection and supervision has been approved so that the grain gola society in each gram panchayat is visited and checked at short intervals. The Co-operative Inspector is required to visit each Society once in two months while the Gram Panchayat Supervisor or Inspector will visit each of them once in four months. Thus between them the Inspector of the Co-operative and Gram Panchayat Department do keep a close watch over the activities of the societies. In addition to the Government staff, there will be the supervisory staff of the central banks whose services too will be available for check and guidance. The duty of ensuring the co-ordination of all these agencies has been laid on the Collector of the district who as the leader of the team of development officers has adequate powers of control.

From the financial point of view, the following safeguards will be necessary :—

Firstly, a maximum should be fixed for the quantity of grain to be stored at any one point of time. This can be done on the basis of an estimate of the requirements of grain credit in the area. It is not difficult to form this estimate particularly because the use of grain credit is limited to three things : seeds, consumption and payment of wages in kind. A study of the loan transactions in the grain golas of Bolangir has shown that the requirement of grain credit in each grain gola will not be more than 2,000 mds. Assuming that out of the 1000 families in each gram panchayat area 500 become members of the society the rate per member will work out to 4 mds. One maund for seed and 3 mds. for other purposes is a reasonable rate. The experience of Bolangir shows that the average demand per member tends to fall as soon as money credit is made available. Thus a stage may be reached when the amount of paddy required to be stored for the purpose of giving loans will represent but a small part of the total assets of the society. If calculation is made on the basis of 1·5 mds. per member at the rate reached in Bolangir in 1956-57 the total stock required for a society of 5000 members will only be 750 mds. The earlier the money credit is made available the sooner this stage will be reached. It is perhaps possible to plan on the basis of a 5 to 8 year period over which there will be progressive reduction of stocks. At the end of the period such stocks as remain may be entirely converted into cash. The society would have by this method educated its members in the practices of money credit, and the co-ordination of cash transactions with supply functions undertaken as an agency of another body.

Secondly, the rate of interest at which the grain loans are given should include a liberal allowance for possible losses due to shortages in storage such as dryage, waste and price fluctuations. In fixing the allowance on account of shortage in storage it must be remembered that the stocks are usually kept for not more than 6 to 7 months. Paddy is collected in January and lent out in June and July. For all storages exceeding a period of one month, Government in the Supply Department had fixed the maximum shortage allowable at ·75 seers in each maund, or in other words, at 1·87 per cent. The recent survey of markets undertaken in the State has however given a higher figure, 1·5 seers per md. or 3·75 per cent. This may be compared to the actual experience of the grain gola societies of Bolangir.

Year	Working Capital.	Dryage	Percenage
1953—54	9,430	149	1.5%
1954—55	26,814	141	.5%
1955—56	33,113	320	.9%
1956—57	34,981	400	1.1%

It would have been more accurate had the calculation been made on the quantity actually stored for the longest period instead of on the basis of working capital. But as this figure is not available calculation has been made on the basis of total quantity of paddy used as working capital. However, to be on the safe side we may adopt the rate reported on the basis of the survey of the markets. As regards the allowance to be made for price fluctuations, two aspects should be borne in mind. Firstly, losses occur only when the stocks are converted into cash and the object of the scheme is precisely not to make such conversions. Secondly losses can occur only if the price at the time of issue of the loans is higher than at the time when it is collected back. The losses will be significant only if the variation in price between the season of lending and the season of collection on the one hand and the variation in price between the above mentioned season of collection and the next season of lending on the other do not correspond with each other. Normally the price is higher at the time of sowing when the loans are given and lower at the time of harvest when the loans are collected back. The variations are very slight. Whatever the variations may be, this factor can be adequately guarded against. Prices are relevant for valuation of the stocks for the purpose of fixing the credit limit of the society and for judging its viability. With these limited purposes it is perfectly possible to value the stocks deliberately low. The prevailing market price reduced by 50 per cent may be adopted for this purpose. The Registrar of Co-operative Societies had always been alive to the importance of this aspect and had never allowed the valuation of these stocks at anything higher than 50 per cent of the market price. While the price is ranging between Rs. 7 to 8, the rate of valuation has been fixed at Rs. 3 4/0. Even if this is not considered a sufficient safeguard we have sufficient allowance for meeting variations in the rate of interest. This at least is one of the reasons why the rate of interest has been fixed at 25 per cent while the corresponding rate for cash is about 9 per cent. There is thus a margin of 16 per cent, which can easily wipe out the possible losses due to various factors. Even if the gram panchayats are paid 10 per cent as interest on their deposits of paddy there will still be 15 per cent out of which it can easily meet these losses, if any. It can be made compulsory that these institutions create separate reserves for meeting these losses and invest them in cash in the central banks. This should provide sufficient financial safeguard against possible losses. In this connection it may be pointed out that an elaborate discussion of price fluctuations and losses resulting therefrom will sound rather unreal in the present context. The prices of paddy are tending to rise and no knowledgeable authority has expressed apprehensions of a fall in prices during the remaining years of the Five Year Plan.

Thirdly, it should be laid down that the society should not divert the cash loans obtained from the central bank for the purchase of paddy. In other words, it should raise from its members by way of shares or deposits all the paddy that it requires for its working capital. This restriction is necessary in order to insulate the cash wing of the society from the adverse influences that shortages in storage and price fluctuations may have on the Grain wing. It is only the owned resources of grain and Governmental deposits of grain that will be invested in grain loans. In view of the case in collections and the higher rate of interest, the society is sure to build up sufficient owned resources for meeting the gradually falling demand for grain loans.

To sum up it is necessary to integrate the grain credit institutions existing in Orissa with the Co-operative credit structure. It is also possible to provide efficient and adequate safeguards against any adverse effects that the combination of grain credit with money credit in primary institutions is likely to have on the credit structure. It also appears a retrograde step if after all that has been done in creating a large number of institutions for providing the kind of credit that has been found by the rural credit survey itself to be predominantly popular they should be abandoned or condemned to a slow attenuation.

V

SOIL AND WATER CONSERVATION THROUGH SELF HELP IN ETAWAH—UTTAR PRADESH

Approximately 172,000 acres, which constitute 16 per cent of the district area, is under ravines. The ravines are due to the deep flowing rivers Jamuna, Chambal and Sengar and the desolate sight is typical of the tract. There were big forests in these areas in the past. Most of these areas now have been brought under the plough and the ravines that now flank the Sengar, Jamuna and Chambal are usually destitute of trees.

In 1888, some 2,000 acres of ravines close to the town of Etawah were planted. This is now known as 'Fisher's Forest'. 31 gully plugging embankments were constructed and the area was closed to grazing. The plantation programme has recently been revitalised, by the Forest Department. The whole experiment has very successfully shown how the growing ravine formation can be effectively checked. However, there is no radiating influence of the programme as the land is taken over by Government out of the hands of the cultivators in spite of the deep and ever increasing ravines have not been encouraged to adapt similar measures. The experiment continues to be a monumental programme in a limited sphere.

With the initiation of Pilot Development Project, Etawah, attention was paid to the programme of soil conservation also. In the villages of Dalipnagar and Eknor on the Jamuna, a programme of gully check dams and upland bunding was taken up with the help of mechanical equipment. The limitation of equipment and its maintenance during the immediate postwar days, paucity of technically trained personnel and high cost involved, limited the scope for further expansion of the experiment. The programme aroused the curiosity of the people who enjoyed witnessing it but did not lead to any action on their part. Neither were any more bunds constructed by the people on their own land, nor did they maintain the ones constructed by Government. The people were not involved and the programme did not become self propelling.

Soil erosion continues to be the most serious problem of the district. With the growing pressure of population, the demand for increased agricultural production, and with the need for preserving soil as a national resource for prosperity, there needed to be evolved a people's programme that would ultimately tackle the problem. A programme that would be within reasonable limits of a cultivator's resources, and also not involve heavy costs to the Government, seems to be the only programme that could suit the conditions and attempt to solve the vast problem.

Bhagyanagar Programme of Soil and Water Conservation

Agricultural and other programmes that were properly demonstrated to the cultivators in the Project became popular programmes of the cultivators' activity by 1952. The success of these gave great confidence to workers on extension techniques and it was being considered with greater hope that programmes, which are based on felt needs of the people and are introduced by the extension techniques and principles, keeping in mind the resources of the farmers, have a greater scope for their acceptance, radiation and regular maintenance.

For effective beginning in soil and water conservation through extension, erosion conditions of Etawah were restudied. It was observed that whereas

erosion on the banks of the Jamuna is very severe and spectacular there are other areas exposed to erosion where considerable damage has been and is being done. Catchment areas of river like the Sengar have very recently been exposed to the dangers of erosion and the menace has started effecting the social and economic condition of the area. Erosion problems therefore of Jamuna and Chambal have much in common.

(*a*) They both flow through typically similar alluvial tract.

(*b*) Socio-economic factors and pattern of agriculture are similar.

(*c*) Rainfall and other geographic factors are common. With these similarities there are some minor though significant differences as well.

(*d*) In Sengar tract even though the damage due to erosion is severe, agriculture in most areas is being continued and only small areas have been abandoned. People are keen to retain their agricultural holdings.

(*e*) As yet complete villages in Sengar tract have not been abandoned and the people still have recollections of the times when the damage was not present or had just started.

(*f*) The slopes are less severe and therefore not absolutely unmanageable.

(*g*) Water table has not yet receded too low and in comparatively levelled areas construction of wells is still economical.

In the Bhagyanagar Block of the Etawah Pilot Project, an original Soil Conservation demonstration project of 10 acres was started in 1953, without any large earth moving machinery, the land remaining with the people and the people doing the major part of the work at their cost under technical guidance by the government and minor Government contribution. Two of the workers had undergone training in soil conservation at Sholapur and had decided to adapt the practices to local conditions for trial in the area. All combined resources of technical information, villagers' confidence in the workers and their best skill in intimate village approach and psychological feel for the situation were used. The villagers had already realised the problems but were sceptic about the solution. However, they pinned their faith in one more activity. The nature helped and they could see the result of different soil conservation measures adopted by themselves. They saw considerable quantities of silt deposited and they saw moisture being retained in their fields for longer periods. They saw the utility and effectiveness of Levelling 'Karhas.' Caster on bunds has given them extra income and grassed planted on bunds and gully plugging embankments have meant extra fodder for their cattle. The area increased to 450 acres in 1954 and the programme expanded to 14 new villages along the river Sengar comprising 2,740 acres for completion in 1955-56. So far, 6,090 acres have had various soil and water conservation measures.

As mentioned earlier the programme is being executed by people themselves in their own fields. Technical guidance is provided by the trained workers of the Bhagyanagar Project without any charge on the cultivators. Care has also been taken to adopt cheap and economic constructions. Heavy reliance has been placed on the farmers' own initiative for the upkeep and maintenance of various field structures and also that the agronomic practices of the area would gradually improve. With a steady programme of farmer education for conservation farming and on the basis of response being given to it, it is hoped that gradually more and more of conservation practices would be adopted.

The cost of conservation, therefore, has been minimised. On an average Rs. 30/- per acre are needed for conservation of agricultural lands open to erosion

at Bhagyanagar. Of these Rs. 5/- are the average expenses for Pucca construction and manual labour to the tune of Rs. 14/- to Rs. 16/- is required for various earth structures. The cost of supervision and guidance incurred by the government is to the tune of Rs. 4 to Rs. 6/- depending on the terrain and the stage of expansion of the programme which is not recovered. Subsidy to the tune of 25% of katcha community constructions and 50% of pucca constructions only is granted which ultimately works out to Rs. 4/- to 5/- an acre. In some cases loans from funds available in the block are also granted which are recoverable in three years. Thus the costs are within an easy reach of an average farmer and the State too can afford the small sum of Rs. 10/- to Rs. 15/- an acre even when the programme expands considerably.

Statement of costs of Soil Conservation Measures based on watershed plans developed at Bhagyanagar, Etawah

Item	Cost of Govt.	People's contribution
1. Survey and Planning	0—8—0	—
2. Earth work construction and Daul Bunds and Gully plugging and levelling	—	18—9—0
3. Community construction subsidy	2—0—0	—
4. Masonry structure	2—8—0	2—8—0
5. Technical guidance and supervision ..	5—6—0	—
Total ..	10—6—0	20—8—0

N.B. Cost for agronomic practices are not mentioned as no additional costs are involved.

Soil Conservation Practices

The conservation practices recommended and followed in Bhagyanagar area were conditioned by the nature of the soil, size of holdings and tenancy rights. The cultivators were naturally averse to a major disturbance of their holdings and an inconvenient sub-division of their fields. Most of the soils of the area are alluvial soils. They vary from loam to sandy loam with scattered Kankar layers. The depth of the soil varies from 30′ to 40′.

Subject to these and local climatic factors the usual soil conservation practices which were recommended are as given below:

(*i*) O to 0.5% slope—Daul-bandi or field bunding with simple grass outlet.

(*ii*) 0.5 to 2.0% slope—Contour bunding with suitable escapes.

(*iii*) 2.0 to 5.0% slope—Terracing and gully check dams.

Agronomic Practices

Stress on proper agronomic practices is emphasised at all stages. The following are, however, the practices that are usually recommended :—

(*i*) Ploughing across the slope.

(*ii*) Sowing of crops across the slope instead of along the slope.

(*iii*) Mixed cropping.

(*iv*) Introduction of erosion resisting crops like Moong, groundnut along with Juar and Bajra, if possible in strips. Usually the strips are based on the following principles depending on the slope of the land and nature of soil.

Serial No.	Slope percentage	Width of erosion permitting crop	Width of erosion resisting crop
1.	1%	72 ft.	12 ft.
	2%	72 ft.	24 ft.
	3%	72 ft.	36 ft.
2.	1%	150 ft.	39 ft.
	2%	80 ft.	20 ft.
	3%	45 ft.	15 ft.

Planning a Soil Conservation Project

It is necessary to emphasise at the very outset that for the specific guidance of all concerned a comprehensive plan for soil conservation measures is prepared based on careful survey. The more complete and thorough is the plan, the less are the chances for confusion and misunderstanding among the field workers.

The programme is planned on a self-defended water shed basis giving a compact block for action. Before selecting a block the cultivators are approached and prepared for the programme. Extension techniques like audio-visual-aids and sight-seeing trips have been organised for giving them an idea about the measures and inspiring them into activity.

Government Contribution in Soil Conservation Work

Since the whole programme is a community programme, the work is mainly and primarily done by the people in their own fields. It is the farmer who constructs bunds and the total cost of any or all operations done under the programme has to be borne by him. The soil conservation workers survey the area, make the plans and guide him for various operations. This technical guidance is free to the farmers.

Cultivators have the facilities to take loans according to their capacity for this programme too as for other development activities. In case of Pucca constructions 33% subsidy is given to individual cultivators and 50 % for the community work.

The programme is gaining momentum in the villages even without enforcing Soil Conservation Act. The cost of construction of soil conservation measures has been cheaper in comparison with other states and comes hardly to 25 to 30 rupees per acre.

In order to make the people conservation-minded and to complete the programme in real sense, it is essential to educate them in conservation activities. To achieve this, soil conservation education study programme in 37 soil conservation villages has also been started recently. Short lessons, conservation slides and flannelgraphs have been prepared to show the cultivators through simple and effective devices the different ways of controlling erosion.

It may be mentioned that village level workers trained in soil conservation are working as Government servants. They were adequately equipped for survey, etc. Superior technical guidance by the Assistant Development Officers and subject-matter specialists is provided as required and is not charged for. In other words technical guidance and advice is free to the cultivators though it has been estimated in the figures given earlier.

Annexure No. 1

PEOPLE'S CONTRIBUTION IN SOIL CONSERVATION WORK DONE IN BHAGYANAGAR PROJECT

1.	Area covered by soil conservation measures—till June 1957		5,600 acres
2.	Estimated expenditure on the area covered	Rs.	1,12,000
3.	No. of people involved		1,207
4.	No. of people who received loans		191
5.	No. of people who received subsidy		22
6.	Loans advanced by the Government	Rs.	27,115/-
7.	Amount of subsidy granted	Rs.	1,022/-
8.	People's own share	Rs.	1,10,978/-

Annexure II

PROGRESS OF SOIL CONSERVATION WORK DONE IN PILOT PROJECT BHAGYANAGAR FROM DECEMBER 1952 TO MARCH 1957

Item of work	Achievements During					Total achievement so far till June 1957
	1952-53	1953-54	1954-55	1955-56	1956-57	
1. Area covered through soil conservation measures ..	10.90 Acs.	140.0 Acs.	450.00 Acs.	2746.48 Acs.	2337.83 Acs.	5684.31 Acs.
2. No. of check dams ..	1	12	26	119	78	236
3. No. of strip cropping demonstrations ..	—	10	30	110	50	200
4. Pucca escapes ..	2	—	3	3	4	12
5. Plantations and Sowings of bunds:						
(a) Babool ..	250′	400′	800′	17673′	—	19123′
(b) Castor ..	—	600′	11192′	26925′	73450′	112167′
(c) Blue panic ..	500′	2000′	4497′	12220′	19377′	39587′
6. Afforestation ..	—	—	—	30.5	11.25	41.75 Acres

VI

CONSOLIDATION OF HOLDINGS IN U.P.

Uttar Pradesh is mainly an agricultural State and about 70% of the population lives on agriculture. This intense pressure on land has resulted in making the holdings of the tenure holders very small and scattered. In the western districts where the density of population is comparatively smaller, average size of a field is about two to three plots to an acre whereas in district Basti in the east, with a much greater density of population, the average number of plots to an acre is 11 to 12. The smallness and scatteredness of the fields is a great stumbling block in the way of agricultural planning and development. It is agreed on all hands that agricultural production cannot be raised to any considerable extent without remedying this situation. Consolidation of Holdings is the obvious solution.

This problem has existed in this State since long. As early as 1921, it was examined by the Government and a resolution was passed in the year 1924 to the effect that while Government were anxious to introduce consolidation wherever possible, in their opinion the country was still a long way from the stage at which compulsion could be introduced. Consolidation was therefore at first attempted through Cooperative Societies. The initial difficulty in this scheme was that it was confined to the members of the societies only and nothing could be done to the holdings of the non-members with the result that the consolidation of an entire village was the exception rather than the rule. The procedure was lengthy and dilatory. Disputes were referred to arbitration and in actual practice took years to decide.

In the year 1939-40, a Consolidation of Holdings Act was enacted. The activities of the Cooperative Department also continued side by side. Through this enactment, partial compulsion was introduced in as much as consolidation of a village was undertaken on the application of the proprietor of the village or a Mahal or of the cultivators of more than one third of the cultivated area of the village. Consolidation under this scheme too did not make any great headway and had to be gradually abondoned.

The following reasons are attributed for the failure of 1939 C.H. Act:

1. No separate department was created for centrally administering the scheme and laying down uniform policy. Similarly, at the district level a few special workers were employed for implementing the scheme, but otherwise the existing revenue agency took up the work with the result that it could not devote sufficient time to it.
2. Factors which hinder consolidation e.g. party factions, scattered and interspersed holdings etc. were not considered in the selection of villages for the scheme. At a later stage it was therefore found that the scheme cannot be successfully implemented.
3. The records of rights of the villages were generally far from accurate and proper attention was not paid to the correction of records before the actual consolidation of holdings began.
4. The consolidators made the allotments empirically and in their efforts to reduce the number of blocks allotted to each cultivator, they destroyed their self-sufficiency and thus made the scheme unpopular.

5. The staff did not take the tenure-holders into confidence and particularly ignored the soil classifications made by the Settlement Officers, which are generally recognised in the village. In fact, they worked on ordinary classes of soil and introduced arbitrary rates in the areas in which panchayat system was tried.

6. Consolidation was done everywhere as an experimental measure and consequently lacked the vigour and determination which should ordinarily be the foundation of all work aimed at the betterment of the people.

7. The staff appointed for this work had not received any previous training. It was far from satisfactory and was not properly supervised by the District Officer.

While framing the Consolidation of Holdings Act 1953 all these points and many others were given due consideration. The time had come when the scheme had to be made compulsory in the interest of the country. Consolidation, as defined in the Act, is the rearrangement of holdings between tenure-holders in such a way as to make the holdings held by them more compact. Our Consolidation of Holdings Scheme is a very comprehensive scheme of village reconstruction and development besides the correction of records and re-arrangement of holdings.

The Government, no doubt, selects the particular area for starting the scheme without consulting the tenantary of that area but provisions have been made in the Act to consult the tenantary in general and the consolidation committee in particular at various stages of the implementation of the scheme. Land is set apart for public purposes such as pathways, pasture land, graveyard, cremation ground, khalihan, manure pits, plantation, schools, panchayat ghar, and extension of abadi etc. This will facilitate the planned development of the village, in future. Acquisition of land for all such purposes in the normal course is always difficult. In the Land Acquisition proceedings only few tenure-holders will be affected and others will escape scot-free. As the benefit will be enjoyed by all equally, the result will be a great resentment among those who will be necessarily affected. The acquisition through the consolidation proceedings will be hardly perceptible as rateable deductions will be made from all in proportion to the size of the individual holding.

As a first step, an intensive checking and partal of the condition of the land records is made. The initial partal is done by a consolidator and checked by the Asstt. Consolidation Officer.

All possible mistakes are detected and corrected. An effort is made to reconcile as many disputes as possible. At every stage of the work the tenure-holders are associated with it and they are previously informed of the work to be done in the village. Most of the disputes and cases are decided on the spot.

Even this has not been regarded as sufficient. A provision has been made to issue extracts of all important records and statements to the tenure-holders to enable them to file objections.

After the records have been duly corrected and brought upto date, the principles on which the consolidation scheme is to be based are formulated in consultation with the consolidation committee of the village. Thereafter proposals are framed by the Asstt. Consolidation Officer and that too after consulting the individual tenure-holders and enquiring from them their graded preferences. All efforts are made to accommodate the wishes of the tenure-holders as far as possible. Special consideration is shown to the small tenure-holders and they are accommodated, as far as possible, nearest to their abadi.

The basis of the exchange of land is not the market value of the land but the rental value which is calculated by multiplying the area of each plot by the sanctioned hereditary rent rates fixed in the last settlement or the revision of records. Where no sanctioned rates are available, the Settlement Officer (Consolidation) is authorised to determine such rent rates in the prescribed manner. To ensure the correct determination of the rent rate, the Assistant Consolidation Officer has to inspect each plot in order to assess whether the productive capacity of any plot has improved or deteriorated due to various reasons. Wherever any such thing is detected, the soil class of the plot is suitably up-graded or down-graded. This work is so important that the rules are being amended to entrust it to the consolidation officers themselves.

Equal importance is attached to the next step which is that of block formation. The blocks do not exceed three in number. Generally, they consist of the best, the average, and the poor quality of land.

Confirmation of the statement of proposals and the delivery of possession to the tenure-holders completes one stage of the consolidation scheme. The Assistant Consolidation Officer has been armed with powers of contempt, resistance and the like as are exercised by the Civil Court in matter of the delivery of possession. Then comes the final stage of the scheme which envisages the preparation of upto date new revenue records under section 27 of the C.H. Act. Detailed rules exist as to the manner in which the new maps and records have to be prepared. To avoid future litigation, finality has been given under the Act to the entries made in the final consolidation records.

To ensure the effective implementation of this scheme intensive special technical training has been imparted to the staff working therein. At the head of the organisation is the Director of Consolidation who has full administrative control over the staff and under section 48 of the C.H. Act exercises powers of revision to set right any illegality or irregularity committed by the subordinate staff. To assist him there are Deputy Directors at the headquarter. As the revenue records are always required by the consolidation authorities and also by the revenue authorities in their respective work, an effort has been made to eliminate the natural conflicts and rivalries. The office of the Settlement Officer (Consolidation) and that of the sub-Divisional Officer and sub-Divisional Magistrate has been merged so that the Settlement Officer (Consolidation) in his capacity as S.D.O. and S.D.M. has full control over the tehsil staff and also over the Police. The District Officer has also been associated with the scheme and has been appointed as ex-officio Deputy Director and certain powers of the Director e.g. under section 48 of the Act have been delegated to him. Also the District Officer has full administrative control over the staff working in the district. He is the appointing authority for the consolidators and all other clerical and ministerial staff in the district. He exercises this control through the Settlement Officer (Consolidation). The Consolidation Officer is a gazetted officer enjoying the rank of a tehsildar while the Assistant Consolidation Officer has the rank of a Naib-Tehsildar. The Assistant Consolidation Officer is the pivot of this scheme and the Consolidation Officer has to effectively supervise his work. The Settlement Officers (Consolidation) have been provided with a vehicle each to facilitate their frequent visits in the interior in order to hear various appeals and also effectively supervise the subordinate staff working under them.

Any one will hardly disagree that the actual implementation of the consolidation scheme is a very difficult job. At every stage special administrative skill and tact is required. Any effort to make the operation of the scheme mechanical is bound to fail and the officials working in this scheme have always to be thoroughly human in their outlook. The greatest difficulty is the psychological

attachment of the tenure-holder to the land which is under his cultivation. Inspite of the fact that he realises the benefits wich will accrue to him after his scattered fields have been consolidated at one or two places, the fear of the unknown comes to the fore-front when the time of the actual exchange arrives. Special efforts have been made to educate the tenure-holders but age old ignorance and illiteracy always bring before his eyes the imaginary defects of the land allotted to him.

Quite a lot of them do not take active interest at the various stages of the work and fail to file objections within the period of limitation prescribed by the Act. The result is that at the time of the formation of chaks many difficulties crop in. In many a case, a tenure-holder is found to be joint in various holdings with other tenure-holders. Many of them fail to file partition applications with the result that in actual practice they get many more than three chaks. To remedy this defect a provision for compulsory partition has now been made in the Act.

Inspite of the training imparted to the staff, the shortage of suitable hands fully equipped for this job, mentally and otherwise, has always been felt. In the beginning retired hands were employed but they did not come up to the expectations. Their services had to dispense with. Now with the passage of time and through the process of elimination and selection, suitable persons have been appointed on important posts. The efforts to train and educate the tenure-holders have continued and the experience of the staff has also helped a lot in making the tenure-holders less unreasonable.

At present this scheme is in force in 26 districts of the Uttar Pradesh; in 3,858 villages having 3,55,403 tenure-holders with 36,76,901 plots, 5,91,964 chaks have been formed.

It may not be out of place to briefly describe the special features of the Act and the Rules:—

(*i*) It is not left now to any particular officer or the cultivators to select a particular village for the implementation of the scheme. This selection is done by Government itself and the scheme is enforced generally in one tehsil in a district at a time by issuing a notification in the Government Gazette to that effect under Section 4 of the Act.

(*ii*) With effect from the date specified in the notification the work relating to the preparation and correct maintenance of the annual records stands transferred to the Settlement Officer (Consolidation) and through him to the Consolidation staff.

(*iii*) Grove lands and land subject to fluvial action and soil erosion have been excluded from the scheme of consolidation. Land managed by Gaon Samajs except pasture lands has also been excluded from the purview of consolidation.

(*iv*) The Asstt. Consolidation Officer, who is the pivot of the scheme, has to carry out the work in close association with the representatives of the residents of the village. A consolidation committee duly representing all the interests in the village is set up and the Asstt. Consolidation Officer has to consult this committee on every vital matter right from the start upto the end. He has to take into consideration the advice tendered by the consolidation committee and generally accepts it. In cases of disagreement he has to refer the matter to the higher authorities for orders. This officer has, however, not been given powers to finalise anything at any stage.

His orders and proposals are subject to objections and appeals preferred against them and the decision of the higher authorities thereon.

(*v*) Before the actual consolidation proposals are drawn up, a statement of principles containing details of the manner in which the actual consolidation proposals will be drawn up in respect of a particular area is prepared by the Asstt. Consolidation Officer in consultation with the consolidation committee. Actual proposals for the formation of chaks are framed by him in active consultation with the consolidation committee.

(*vi*) Not only the Asstt. Consolidation Officer but the Consolidation Officer and the Settlement Officer (Consolidation) have also to remain in close touch with the village in which operations are under way. They are required by law to pass orders on objections and appeals etc. only after inspecting the locality.

(*vii*) In order to avoid long drawn out litigation, disputes involving a question of title are referred for final decision to an Arbitrator who is either a Civil Judicial Officer or an Asstt. Collector 1st class of not less than 5 years standing.

(*viii*) Jurisdiction of the civil courts has been ousted in respect of such matters that are raised or that could be raised before consolidation authorities under the provisions of this Act.

(*ix*) Presumption of finality and conclusiveness is given to the entries in the record of rights prepared during the concluding stage of the operations so as to save the people from future litigation.

VII

ROLE OF CO-OPERATIVE LAND MORTGAGE BANKS IN THE AGRICULTURAL ECONOMY IN THE ANDHRA PRADESH

Introduction

Long-term credit is available to the agriculturists in the Andhra Pradesh through co-operative land mortgage banks registered for the purpose. The structure of land mortgage banking in the State consists of the two tiers: (1) primary land mortgage banks at the base, generally at the taluk level, and (2) a federation of these banks, i.e., the Central Land Mortgage Bank at the State level.

Primary Co-operative Land Mortgage Banks

Objects, constitution and working: Generally, the area of operation of a bank is limited to one revenue taluk in the delta area and to two and sometimes three taluks in the upland (dry) areas. There are at present 70 land mortgage banks in the Andhra Pradesh.

The objects of primary land mortgage banks are "the promotion of the economic interests of their members and more particularly, to arrange for funds to be lent to their members on mortgage security for (1) the redemption of mortgages on agricultural land, (2) the improvement of agricultural land and of methods of cultivation, (3) the discharge of other prior debts, and (4) the purchase of land in special cases so as to enable the *ryot* to round off his holding and work it more economically." Any person owning agricultural land within the area of operations of a primary land mortgage bank can become a member and obtain loans from it on the security of his land. The funds required for the purpose are raised by way of shares from members and borrowings from the Central Land Mortgage Bank to which primary land mortgage banks are affiliated. A member has to subscribe to the shares to the extent of 5 per cent of the loan he takes.

The management of a primary land mortgage bank vests in a Board of Directors consisting generally of nine members elected by the share-holding members. The Board elects a president, a vice-president, a treasurer and a secretary. A primary land mortgage bank with a loan business of Rs. 4 lakhs and more has to employ a full-time, paid secretary. The services of the members of the Board as well as of office-bearers are gratuitous.

The maximum loan that could be advanced by a land mortgage bank to any individual member is provided for in its bye laws. Generally, it is Rs. 15,000/- in the case of banks serving delta areas, where there is a certainty of raising at least one crop a year, and Rs. 10,000/- in the case of banks operating in other than delta areas. Loans are given on the *first* mortgage of unencumbered agricultural land. On receipt of an application for a loan, the supervisor of a primary bank makes a preliminary enquiry, inspects the land and reports on the suitability of the application, obtains an encumbrance certificate for 24 years and secures all the documents required to prove the title of the applicant to the land offered for mortgage. The opinion of the legal adviser regarding the title of the applicant to the hypotheca is obtained and the loan case is then sent to the Cooperative Sub-Registrar (land valuation officer of the Co-operative Department) trained specially for the work. The valuation is made by him after personal inspection of land with reference to the sales statistics. Statistics of sales of the

lands adjoining the hypotheca during the pre-war period (1938-40) and the post-war period (1946-50) are taken into account and the average price per acre in the pre-war and post-war periods is worked out and the mean of the two averages is arrived at. Again, the most relevant pre-war sale is selected and 40 per cent of it is added to it. The price per acre so arrived at is compared with the mean of the pre-war and post-war rate per acre and the lower of the two prices is adopted for the purpose of valuation.

As the lands hypothecated to the bank constitute the sole security from which the loan is to be recovered, they are inspected and revalued annually to ensure that they have not changed hands, that there are no further encumbrances on them, that they are being regularly cultivated, that they have not deteriorated in value impairing the security for the loan advanced. If there is any fall in value, the deficit is to be made good by additional security.

The work of land valuation officers is controlled by Gazetted officers of the Government (Deputy Registrars for land mortgage Banks) who are responsible to the Registrar and are under his control. The Cooperative Sub-Registrars for land mortgage banks receive special training in land mortgage banking. Training in land records and survey, inspection and valuation of land, etc., is given to them for 4½ months before they are put on this work.

Legislative Privileges and Facilities

How law helps land mortgage banks: To facilitate and develop land mortgage banking, separate legislation for cooperative land mortgage banks was passed to supplement the provisions of the general co-operative societies Act. To ensure prompt recovery of loan instalments, provision has been made in the Land Mortgage Banks Act to distrain standing crops or produce from the hypotheca and to recover the overdue instalments within twelve months from the date they fall due. Provision has also been made to bring the hypothecated properties to sale and to recover the entire loan amount without the intervention of a Court of Law after giving notice and following the prescribed procedure.

Andhra Co-operative Central Land Mortgage Bank

The role it plays:

Land Mortgage Banking in Andhra and in the rest of the old Madras State received an impetus with the organisation of an Apex Land Mortgage Bank in December, 1929 (the Madras Central Land Mortgage Bank) which served as the apex bank for long-term credit for the composite state of Madras comprising the present Madras and former Andhra State. On the eve of the formation of the Andhra State in October, 1953, the Andhra Co-operative Central Land Mortgage Bank was organised and the assets and liabilities of primary land mortgage banks in the Andhra State were transferred to it. The Central Land Mortgage Bank is managed by a Board of 14 Directors of which the Registrar of Co-operative Societies is an ex-officio member. The Registrar is also the trustee.

How do Land Mortgage Banks Raise Funds?

The main object of the Cooperative Central Land Mortgage Bank is to finance primary mortgage banks. For this purpose, it raises funds principally by issue of shares and debentures. The bank is authorised under the Land Mortgage Banks Act to float debentures on the security of mortgages and other assets transferred to it by primary mortgage banks. Debentures are thus secured by the mortgages of unencumbered land obtained from borrowers. Debentures-holders have a floating charge on the mortgages and other assets of the bank.

The Registrar of Cooperative Societies is the Trustee for securing the obligations of the Bank to the debenture-holders. The relationship between the Trustee and the Bank is governed by a trust deed executed between the Board of the Bank and the Trustee. Under the provisions of the Land Mortgage Banks Act, the Government of Andhra Pradesh have guaranteed the principal of, and the interest on, the debentures issued by the Central Land Mortgage Bank and in circulation upto a maximum of Rs. 550 lakhs. By virtue of Government's guarantee, the debentures are Trustee securities (under Section 20 of the Indian Trusts Act) in which trustees may deposit funds. They are also *approved* securities under the Insurance Act 1938, and the Banking Companies Act, 1948. It is this guarantee that has, in a great measure, inspired confidence amongst investors and enabled banks to secure money at a reasonable rate of interest.

To ensure due repayment of debentures on maturity, the bank has constituted sinking funds in respect of its debenture liability, into which annual payments are made out of the collections received on the mortgages. Sinking funds are invested in Government and other trustee securities.

For what Purposes Land Mortgage Bank Lends ?

In the first decade of their existence, land mortgage banks disbursed the bulk of their loans for repayment of prior debts of farmers who were badly hit by the economic depression of the thirties. The post-war high level agricultural prices, grow-more-food campaign, insistent need for increased agricultural production and in consequence, for land improvement and better land use and for improved farming methods have had their reactions on land mortgage banks. The Cooperative Central Land Mortgage Bank has entered a new phase of economic endeavour and reoriented its loan policies and procedures and assiduously and deliberately addressed itself to the task of *productive loaning.* Large scale and minor irrigation works, schemes of hydro-electric power have been undertaken by Government and have been or are being completed. In consequence, there is imperative need for bringing large areas of dry land under irrigation and for promoting agricultural development; again, more intensive methods of agricultural production and farming are being undertaken in the community project and National Extension Service areas. As a first step in this direction, the Central Land Mortgage Bank instructed primary land mortgage banks to give priority to applications for loans for productive purposes. Loans for over Rs. 5,000 are sanctioned only if they are required for land improvement and development. Thus the recommendations of the All-India Rural Credit Survey Committee, that land mortgage banks should give first priority to applications for loans for land improvement, reclamation and development of land, purchase of agricultural machinery and equipment and other productive purposes and that applications for amount in excess of a specified amount should not be entertained unless the loan is for agricultural development, have been and are being actively implemented by land mortgage banks. In particular, land mortgage banks have been promoting and encouraging loans for the following Productive Purposes:

(*a*) Sinking of irrigation wells (inclusive of filter-point tube-wells) ;

(*b*) repairs to, or construction of, tanks for agricultural purposes ;

(*c*) purchase of oil engines, electric motors or pump sets ;

(*d*) levelling or bunding of lands ;

(*e*) conversion of dry land into well land ;

(*f*) purchase of tractors or other agricultural machinery ;

(*g*) increase of productive capacity of land by addition to it of special varieties of soil or manures ;

(*h*) raising of fruit gardens ;

(*i*) construction of *pucca* farm houses, cattle sheds, tabacco barns, sheds for processing agricultural produce like sugar-cane ;

(*j*) purchase of machinery like cane crushers, furnaces for jaggery making ;

(*k*) any other purpose which aims at the development or improvement of land and its increased productivity ; and

(*l*) discharge of prior debts incurred for any of the above purposes, provided the debt was incurred and the land improvement effected within such reasonable time before the application for the loan as to make available adequate proof that the improvement in question was the purpose of the debt.

The land mortgage banks have undertaken educative propaganda by issue of pamphlets in the regional language bringing to the notice of the agriculturists the benefits of effecting land improvements. As a result of this sustained drive, land mortgage banks in the former Andhra State have succeeded, in an increasing measure, in financing land improvements and better land use. The following table is evidence of the increasing appreciation of the utility of productive loans:

Period	Total loans issued	Loans issued for productive purposes by primary banks including loans for repayment of prior debts incurred for productive purposes	Percentage
	Rs. in lakhs	*Rs. in lakhs*	
5-9-53 to 30-6-54.	43.33	15.71	36.26
1-7-54 to 30-6-55.	48.41	31.87	65.84
1-7-55 to 30-6-56.	60.13	49.40	82.16
1-7-56 to 30-6-57.	70.91	64.59	91.09

In regard to loans for land improvement, the bank has prescribed a procedure to ensure proper utilisation. Where a loan is required for sinking of wells, levelling, bunding or other earth work, the estimated cost as furnished by the borrowers is checked by the directors of the primary land mortgage bank and verified by the Cooperative Sub-Registrar with reference to local rates. Wherever possible, the advice of a technical man like an overseer or an engineer is obtained. Where a loan is required for purchase of oil engines, electric motors, tractors and other machinery, quotations are obtained from reputed firms to facilitate counter-check of the loan amount applied for. In the case of other improvements, the amount is disbursed in one or more instalments, the final instalment being paid after a certificate is obtained from a director of the bank that the work has been completed. Where an application is made for repayment of a prior debt, enquiries are made by the directors and the Cooperative Sub-Registrars as to the purpose for which debts were originally utilised. Applications for repayment of debts originally incurred for wasteful purposes are summarily rejected.

How Can Land Mortgage Banks Finance New Project Areas ?

In this State, vast areas are being brought under irrigation (for instance, Tungabhadra Project). The lands coming under such irrigation projects require long-term finance for reclamation and development. The State Government have agreed to entrust the issue of long-term loans in specified zones of the project area to the Andhra Cooperative Land Mortgage Banks and to guarantee, for a period of four years, the difference between the actual amount advanced by land mortgage bank for reclamation and the amount of loan that could normally be sanctioned by the banks according to current methods of valuation. Government have desired that the rate of interest to the ultimate borrower should be 5½%, that is, the rate charged on *taccavi* loans. The scheme could not be worked as the rate of interest demanded by the Government of India for provision of funds for the purpose is as high as 4½%.

Period of Loans and Rate of Interest

The period of loans till very recently was 20 years in all cases. But it is now being limited generally to 15 years, because of the increase in income from land. The period of loans is now more closely related to the purposes of loan and the repaying capacity of the borrower.

The rate of interest on loans is regulated with reference to the rate of interest paid by the bank on its debentures. At present the ultimate borrower is charged 7%.

State and Co-operative Land Mortgage Bank

There is hardly a field of co-operative effort which has received so much of the State's attention, interest, financial aid and support as the land mortgage banking and its remarkable progress is evidence of how fruitful partnership between Government and co-operative organisation can be. It has already been stated that Government have generously extended guarantee (for Rs. 550 lakhs) in respect of both principal and interest on debentures. Government have provided independent staff for appraising the value of lands and for inspection of primary land mortgage banks. During the infancy of these banks this staff was provided free of cost, but now half the cost of the valuation officers and their peons and the full cost of the Deputy Registrars and their establishments recovered from the Central Land Mortgage Bank. The mortgages executed in favour of land mortgage banks by their members are exempt from stamp duty, but registration fee is payable by certain categories of borrowers. To enable the Co-operative Central Land Mortgage Bank to finance primary banks till debentures are floated, Government provide the bank with temporary accommodation. Such accommodation is about Rs. 50 lakhs a year and is repayable in nine months at half per cent below the bank rate.

Land Mortgage Banks' Programme in the Second Plan Period

In the wake of the recommendations of the All India Rural Credit Survey that the loan policy should be reoriented in order to promote loans for improvement, development and reclamation of lands, purchase of agricultural machinery and equipment and other productive purposes in the Second Plan period and of the need for increased agricultural production, land mortgage banks have drawn up a rather ambitious loan programme as shown below :

Year.	*Rs. in lakhs.*
1956-1957	83
1957-1958	105
1958-1959	133
1959-1960	172
1960-1961	230

The development programme aims at an increase in the number of primary land mortgage banks and in the volume of business. Provision has, therefore, been made for the employment at the primary level of additional supervisors, 50 per cent of the cost being met by the Government and the balance by the banks themselves. It is proposed to provide for the appointment of additional valuation officers (Co-operative Sub Registrars), a Deputy Registrar (to control and regulate their work) and a liaison officer (of the grade of a joint Registrar) for closer co-ordination of effort in this particular field between land mortgage banks and Government Departments such as Agriculture, Public Works and Electricity Departments specially in the National Extension Service and Community Development Blocks and for formulation of more balanced, prompt and satisfactory measures and arrangements for the provision of long-term capital for land improvement and improved farming and increased agricultural production. Land Mortgage Banks have a task to fulfil in our developing agricultural economy and with greater imagination, effort and coordination, they can fulfil it.

VIII

WORKING OF THE COOPERATIVE LIFT IRRIGATION IN BOMBAY STATE

In June 1949, Government sanctioned a scheme of financial assistance to cooperative societies undertaking Lift Irrigation Scheme to encourage the "Grow More Food" campaign. Under the scheme cultivators interested in forming Lift Irrigation Scheme could collect together and decide to group together their lands for the purpose of irrigation and work the scheme on a cooperative basis by forming a society. Such societies were assisted both by way of loans and subsidies. The scheme has been in force for the last 8 years since June, 1949 and has been continued during the I and II Five Year Plans. The scales of financial assistance have, however, been revised twice. During the second Five Year Plan period it has been proposed to organise 23 new schemes with an area of 4,600 acres in the residual Bombay State. In the second Five Year Plan period, it is proposed to complete all the part-complete schemes and provide for certain additional facilities to the societies existing as well as new ones and also for certain additional establishment, both technical and administrative, to ensure adequate and efficient supervision and guidance for the Cooperative Lift Irrigation Schemes.

The scale of grant of financial assistance to the Cooperative Societies undertaking Lift Irrigation Schemes during the period is as follows:—

(a) Loans to the extent of 50% of the capital cost of the schemes on long term basis returnable in 15 years.

(b) Subsidies to the extent of 25% of the capital cost of the schemes.

(c) Additional medium term loans to the extent of 15% of the cost of the scheme to serve as working capital for the schemes returnable in 5 years.

(d) Subsidies to the extent of Rs. 900/- during the first year and Rs. 450/- for each of the 2nd and 3rd years respectively towards the cost of Secretary-cum-Driver appointed with the approval of the Registrar.

The Lift Irrigation Scheme which availed of the financial assistance under Government Resolution, Revenue Department No. 10984/45, dated the 2nd June 1949, are given the benefit of the additional loans for working capital and these schemes sanctioned under Government Resolution, Development Department, No. CSL-1653-D, dated the 18th December, 1953 are given the option to chose the present scale of financial assistance proposed for the new schemes, if they so desire.

The financial assistance is regulated on the basis of the plans and estimates drawn up by the technical experts of Government viz.: The Agriculture Engineer to Government, Bombay State, Poona-5, in respect of the mechanical part of the scheme and the Executive Engineer of the Public Works Department in respect of the civil portion of the scheme and the necessary certificate of feasibility, progress and completion of the schemes issued by them. On the receipt of the final feasibility certificate from the Agricultural Engineer and on an application from the society, 60% of the amount of loan and subsidy sanctioned is disbursed. On receipt of the progress certificate certifying that the amounts already disbursed are utilised, a further disbursement of 20% of the sanctioned amounts of loan and subsidy is disbursed to the societies only on receipt of the

completion certificate both in respect of the civil and the mechanical portions of the schemes, subject to the costs certified as reasonable in the completion certificate.

When the scheme was first started the collection of the particular amount of share capital was not being insisted upon, and societies were being registered even with a meagre share capital which in some cases was as low as 2 to 3% of the capital cost of the schemes even though it was generally indicated to the societies that share capital to the extent of 10% of the cost of the schemes consisting less than Rs. 1 lac and 20% over 1 lac should be collected by them for enabling them to complete their scheme expeditiously without financial hinderance. Such relaxation had to be allowed in view of the special circumstances of food scarcity then prevailing and the urgent need to enhance food production by, among other measures, provision of irrigation facilities,. In course of time, it was found that the societies could not or did not collect the requisite share capital of 10% or 20% as the case may be depending upon whether the schemes undertaken by them were estimated to cost less than a lakh of rupees or more, though they promised to do so as the execution of the schemes progressed. As a result many of the big such schemes could not be got completed. With the experience so gained it was stipulated in 1953 that the societies should collect a minimum of 33⅓% of the capital cost of the schemes by way of share capital. This was, however, too much to be expected from the cultivators who as a class were men of extremely limited means. With the reduction in the scale of financial assistance for the schemes, and the insistence of collection of a minimum share capital of 33⅓% of the cost, the number of new schemes coming up dwindled. Government, therefore, on reconsideration, revised the conditions for grant of financial assistance. At present the promoters are required to collect only 25% of the capital cost as share capital, which they can do in two stages viz. 15% collection before registration of the society and the remaining 10% before availing of the Government financial assistance. As all the financial assistance granted towards capital cost of the schemes as well as their own share capital is required to be spent in completion of the schemes additional medium term loans to the extent of 15% of the capital cost are proposed to be given to these societies to serve as working capital. Registration of L.I. Societies was at its peak up to 1951-52 but thereafter the pace has been slowed down and number of societies registered during the last 3 years hardly comes to 10.

The difficulties in the way of speedy execution and completion of these schemes were and continue to be many. The schemes were first being investigated by the Engineering Section of the Agricultural Department. But after a short time the Civil staff of the Engineering Section of the Agricultural Department was transferred to Public Works Department. Owing to closing down of the special divisions of the minor irrigation works the Department had to look after the work of investigation and preparation of plans and estimates of schemes on river, wells, nallas, etc., in addition to their own work. The preparation of plans and estimates of schemes on wells were and are being prepared by the Agricultural Engineer to Government, Bombay State, Poona, with the help of his staff. With the entrusting of the work of investigation, preparation of plans and estimates etc., of the schemes on rivers and nallas to the Public Works Department delays in investigation etc., started as the District staff on the Public Works Department could not cope with this additional work. Finally in 1952, four special sub-Divisions were created to attend to this special sub-Division, one was later on closed down because of insufficient work and three are working at present and are stationed at Ahmedabad, Poona and Miraj. These three sub-Divisions are looking after the civil work of the Cooperative Lift Irrigation Schemes in entirety and the regular staff of the Public Works Department in districts has been relieved of this work. In executing the schemes, the societies were and even now are not able to get sufficiently experienced contractors to

undertake the work of the schemes and in many cases when tenders were called they were higher than the approved estimates. In some cases plans and estimates had to be revised according to the requirements in view of the certain data accepted as basis of these estimates not being actually found existent in the entirety in practical implementation of the schemes. Approval for these revisions had to be taken from the competent authorities which took considerable long time. In some cases the societies on their own responsibility modified the plans, etc., without taking prior permission for the same which resulted in delays or with-holding of further disbursements of funds to the societies until a satisfactory explanation or clarification has been obtained. The societies also experienced difficulties in obtaining the necessary materials like cement and iron in time and they had to wait for months together at times to get the hume pipe or the engines etc., which had to be booked sufficiently in advance. Lastly, due to the ignorance and illiteracy of the promoters who had no sufficient drive to see that the execution of the schemes proceeded according to the schedule or due to the fact that the necessary conditions like collection of requisite share capital or offering of the necessary security for the Government loan not being fulfilled, a few of the schemes dragged on for years together without being got completed.

In order to minimise some of the difficulties experienced by the Lift Irrigation Societies, and revival of their working on sound lines, it has been proposed to appoint District Committees comprising of the :—

1. Collector, 2. Assistant Registrar, C.S., 3. The Executive Engineer, 4. The District Agricultural Officer and a representative of the Agricultural Engineer to Government. It is hoped that with the formation of such committees the execution of incomplete schemes would be expedited and the existing societies would be persuaded to take advantage of irrigation facilities to the full extent. The proposals in this behalf are under the consideration of Government.

The aggregate estimated cost of these schemes amounts to Rs. 1,64,69,688/-. The extent of financial assistance made available to those schemes during the year 1956-57 was Rs. 3,28,548/- out of which 1,64,646/- were advanced by way of loans and Rs. 4,23,811/- given as subsidies. The total financial assistance so far made available to these schemes was Rs. 1,48,70,743/- out of which Rs. 57,40,106/- were loans and Rs. 58,71,472/- as subsidies. The Cooperative Lift Irrigation Societies had an aggregate paid up share capital of Rs. 23,79,768/- and their reserves and other funds amounted to Rs. 26,04,870/-. The total investments of the Lift Irrigation Societies in machinery and other assets were of the value of Rs. 1,03,21,769/-. The investments of other type of societies in Lift Irrigation Schemes is of the value of Rs. 35,92,441/-. In all 558 engines and electric motors of varying H.P. aggregating to 12003 H.P. have been installed and the total area of 21,647 acres was irrigated in the year 1955-56.

Out of the total 289 schemes in the Bombay State 222 schemes have been completed and 67 are yet to be completed. Out of the 67 schemes which are incomplete 27 are already completed and some of them have started working though the completion certificates are awaited or some minor items have remained to be completed. Some of these societies are however experiencing difficulties even to get the minor items remaining to be completed owing to shortage of funds. The rest are in progress of execution or are under the process of being executed.

During the year 1955-56 attempts were made to organise Cooperative Lift Irrigation Societies to take over Government Lift Irrigation Schemes run by the Agricultural Department for the benefit of the agriculturists. 5 of the schemes,

namely Manekpur, Umra, Kodod-Tiwa and Miroli have recently been taken over by the cooperative societies to work them.

As regards the performance of the completed schemes about 75% of the agriculturists in the command area are taking the benefit of the schemes and are irrigating about 35-40% of the area of the scheme. Nearly 30% of the schemes are under profit and it is felt that in course of time the area under irrigation of these schemes would increase with the irrigation of lands reaching the optimum.

In the second Five Year Plan period it has been proposed to have only about 23 new schemes with an approximate area of 4,600 acres and consolidate the already existing schemes and improve their working by giving them the necessary guidance in improved agricultural methods etc. In view of the integration of other areas in Bombay State, the target and provisions, therefore, may have to be suitably revised.

It was observed that, though many Cooperative Lift Irrigation Societies have completed their schemes and have started irrigating, the lands are not able to bring the whole of the area under the command of the schemes, under irrigation, and as a result they are finding it difficult to pay Government loan instalment and interest on loan on account of low income derived from the water rates collected by them. This is partly due to the societies not adopting scientific crop plan according to the capacity of engines and availability of water during the different seasons. In the absence of such a plan which could suit the largest number of members, members indiscriminately raise their crops of more than one type at different places and demand water for those crops (e.g. Sugarcane) even though they may be situated at a distance and may affect water supply to other members. The members whose crops are thus affected naturally cannot be enforced to pay any water charges. There is also tendency among some members of lift irrigation societies to keep themselves along and not to take water for irrigating their lands. As a result the society gets low income. In order to overcome the latter difficulty the societies have been advised to split up the water rates into the two components. The 1st component, consisting of fixed charges of expenditure such as depreciation, loan instalment, interest, and management expenses, is to be borne by all the members in proportion to their land held by them, irrespective of whether they take water or not and the second component consisting of direct charges such as expenditure for fuel, oil repairs, and maintenance etc., is to be borne by the only such members, who would draw water for irrigation purposes. In regard to the former difficulty regarding cropping the societies are advised to adopt a scientific cropping plan which could enable them to put the water to the best possible use over the largest possible area. It is hoped that such a method would assure adequate income to the society and it would also be able to pay Government dues regularly and the agriculturist members would also be induced to irrigate more land, as they are required to pay fixed charges irrespective whether he avails of water facilities or not.

In order to safeguard Government investments and interest, the model bye-laws and the mortgage deed provide a clause for compulsory insurance against floods, fire, theft, etc., etc., of the machinery and other properties of the societies. The societies have been advised to insure their properties with All India Cooperative Fire and General Insurance being a Cooperative concern. It is however noticed that the Lift Irrigation Societies are not insuring the properties owing to heavy annual premium and lack of technical knowledge. But with the introduction of split rate system it is hoped that the financial position of the societies would be improved, and they will be able to pay the premiums.

During the Second Five Year Plan, a lump sum provision of Rs. 80,000/- has been provided towards the appointment of Assistant District Co-operative Officers, who would be deputed to incomplete schemes, which are lingering for a long time to work as Manager of the Society, to expedite the construction work.

It has been noticed that the Lift Irrigation Schemes are not being executed, according to the plans and estimates prepared by the technical staff as the societies are not getting experienced and qualified contractors and Engineers. It is further noticed that the societies do not complete the scheme within the stipulated period. In order to overcome these difficulties it has been decided to entrust the execution of new schemes to the Public Works Department, which charges 14% as centage charges for execution work of the scheme. The societies will not be able to pay this high charge of 14% to P.W.D. and Government has therefore been moved to sanction 7% of the centage charges as subsidy. Government orders are awaited in the matter.

In order to guide the Lift Irrigation Societies in its working and to give them advice in technical matters, one Deputy Engineer, 5 Mechanical Supervisors and 10 Assistant District Cooperative Officers have been appointed. During the Second Five Year Plan, it has been decided to depute Agricultural Graduates to work as Managers of the large sized completed schemes, to advise the societies in the cropping programme and to educate the Agricultural members in the improved methods of cultivation, for perennial and other money crops etc., etc. It is also proposed to appoint 5 more Mechanical Supervisors to strengthen the existing staff. 3 Deputy Engineers of the Public Works Department are working at Poona, Miraj, Ahmedabad for preliminary investigation, preparation of plans and estimates and for issuing progress and/or completion certificates of the schemes.

WORKING OF THE FOREST LABOURERS' CO-OPERATIVE SOCIETIES—BOMBAY STATE

Prior to the year 1947, the Forest Department used to sell forest coups to Contractors by public auction. In April 1947, the then Chief Minister late Shri B.G. Kher announced, at a conference of the Adivasis at Mahalaxmi in the Thana District, the Government's policy of organising Co-operative Societies of Adivasis and other forest labourers with the help of social workers and hand over forest coups to them on reasonable terms as part of a comprehensive programme for the all round advancement of the Adivasis. The objective underlying this policy is that the Adivasis and other forest labourers should not only get fair wages but also the profits out of coups contracts and, further, these co-operatives should progressively take the place of forest contractors.

In order to implement this policy, Government has set up a committee for planning the development of the forest labourers' societies, which consists of the following members :—

1. The Deputy Minister for Forest Labourers' Co-operative Societies—(Chairman).
2. A representative of the forest labourers' societies from Maharashtra area nominated by Government.
3. A representative of the Societies from Gujarat area also nominated by Government.
4. The Chief Conservator of Forests.
5. The Director of Small Industries and Additional Registrar for Industrial Co-operatives.
6. The Director of Backward Class Welfare.
7. The Chairman of the Bombay State Co-operative Bank Limited.
8. A representative of the State Industrial Co-operative Association Limited.
9. A representative of the Bombay Provincial Co-operative Institute.
10. The Secretary to Government, Agriculture and Forests Department.
11. The Secretary to Government, Industries and Co-operation Department.
12. A representative of the Finance Department,
13. The Special Forest Officer for Forest Labourers' Societies—(Secretary).

Note :—There also used to be a representative of the Societies from Karnatak area prior to the reorganisation of States.

The functions of the Planning Committee are as under :—

1. To organise and assist in organising Co-operative Societies of Forest Labourers and to co-ordinate their working.
2. To provide for their supervision.
3. To plan for undertaking exploitation of forest coups.
4. To advise the Government in the matter of allotment of coups to the Socieies.

The Planning Committee, after taking into consideration the financial position and ability to work coups of the various Societies, recommends allotment of coups to them every year. The Societies are required to be sponsored by any of the sponsoring bodies, which are recognised by Government. There are about 15 such social organisations. These agencies help the organisation of the Co-operatives of the illiterate and ignorant adivasis and other forest labourers and guide them in their work. The Co-operative Department provides funds to the Societies through the Central Financial agencies on Government guarantees.

The Forest Department then allots coups to the Societies in accordance with the formula laid down by Government for the fixation of upset prices of the coups thus allotted. The allotment of coups is made as far as possible by the end of June every year. The upset price of a coup is fixed as follows. The quantity of material that can be extracted from a coup is estimated on the basis of the enumerated trees. The enumeration of trees is done jointly by the Forest Department with the representatives of the Societies concerned. The Forest Department then makes the best estimate of the value of the material in the coups in consultation with the representatives of the Societies concerned. The upset price of the coups is then fixed after deducting from the estimated value of the estimated material, the total operational cost, i.e., the expenditure allowed to the Societies on certain items of operational cost such as extraction charges, transport charges, coups depot expenses etc. in accordance with the standard rates, and a margin of 10% of the total operational cost to serve as net profit to the Societies. The Societies are required to pay to the Forest Department the full price of the coups thus calculated by the 30th June of the following year. At the end of September each year, the estimated value of the estimated material less 10% of the operational cost is checked against the actual realisation from the produce by a Sub-Committee of the Planning Committee and the consequent loss or gain is shared 50 : 50 between the Society and Government, provided in the case of the loss, the Chief Conservator of Forests certifies that the loss is not due to mismanagement of the Society.

In addition to the above concession, several other concessions in respect of the payment of deposit, extension of time for working in the coups etc. are granted to the Societies. The Forest Department guides the Societies also in the method of exploitation of coups. The Cooperative Department which registers the Societies under the Bombay Provincial Co-operative Societies Act, 1925, ensures that they maintain their accounts properly and distribute their profits fairly.

Statistical information as to the number of societies that have been functioning during the past five years and the A.O. of coups allotted to them is given below :—

Year	*No. of societies*	*No. of coups allotted*
1952-53	67	151
1953-54	73	182
1954-55	96	256
1955-56	122	309
1956-57	163	406

Information regarding formation of the coups, their components, working etc. can be had from the Industries and Cooperation Department.

X

PILOT PROJECT IN INTEGRATED COOPERATIVE DEVELOPMENT—U.P.

Nauranga (KANPUR)

The basis for advancing loans in the credit structure in India has so far been the material assets known as 'Hasiyat' and the shares held by the borrowers without any regard to the production needs or the productive capacity of the borrowers. It has also no integration with production programmes or marketing. The All-India Rural Credit Survey Report released towards the end of 1954 emphasised the need for re-orientation of this view-point.

The main recommendations of the Rural Credit Survey Report aim to provide a functional integration of credit, agricultural improvements, marketing and thrift by:

(1) Setting up large-sized primary credit societies—the objective being that the Society shall be economically self-sufficient having adequate transactions to permit employment of whole-time staff;

(2) Loaning to be directed towards production needs and increasing production of the members, and obtaining a broad membership to include small cultivators who are productive;

(3) Organising marketing societies for linking credit with marketing to provide marketing facilities to the members and to work as agents of the credit society for the recovery of loans advanced by the latter; and

(4) State participation at all levels of co-operative organisation (primary, central and apex).

The Planning Research and Action Institute prepared a pilot project based on the above recommendations but with some modifications to suit local conditions as early as in May 1955. The Project Committee was formed to scrutinise different provisions of the Scheme and decide the venue of the Project. The Project Committee met from time to time and discussed the details. In October 1955, the Project Committee decided to start the Project at Nauranga by converting the Nauranga Co-operative Block Union into a *Marketing Society* and amalgamating 20 primaries affiliated with Nauranga Union into a *large-sized credit society*. The model bye-laws for the new societies were prepared. Special general meetings were held in December 1955 and the new large-sized credit society (hereinafter called Regional Society) and the Marketing Society were registered with revised bye-laws in the last week of January 1956.

Regional Cooperative Society

General Information: The area of the Society at present covers 44 villages and 24 hamlets containing 3245 agriculturist families and 2127 non-agriculturist families within a radius of 4 miles from Nauranga—headquarters of the Society. There are three kinds of members—Ordinary, Special and Nominal. Ordinary membership is open to all individuals within the area of operation of the Society, Special membership is reserved for State Government. Those who join the Society only for the 'Chit Fund Scheme' are Nominal members.

Shares are of two kinds—'A' and 'B'. 'A' class shares are of the value of Rs. 10/- each and are subscribed for by ordinary members. 'B' class

shares are of the value of Rs. 100/- each and are subscribed for by the State Government—Special member. Nominal members are not required to purchase any shares. They have to pay only an admission fee of Re. 1/- each.

The liability of 'A' class share-holders is limited to 4 times the nominal value of the shares held by a member. The liability of 'B' class share-holders is limited to the nominal value of the shares.

The supreme authority vests in the general body which comprises of all ordinary members and all such representatives of special members as may be serving in the Board of Directors—each member having one vote. The Board of directors consists of elected and nominated directors. The election of directors is on the basis of one director from each village having 50 or more ordinary members. The Board elects its own President and vice-President.

A supervisory committee consisting of five members is appointed in each village or hamlet having a membership of 10 or more than 10 members to preserve and strengthen the constructive features of the traditional village life. It also advises the members on important agricultural practices and guides the Board in fixing the cash credit limits of the members and in the proper utilisation of loans.

A whole-time paid Secretary-Manager appointed with the approval of the District Co-operative Officer conducts the day-to-day affairs of the Society. For 3 years, his cost is not to be borne by the Society.

The functions of the Society provide for meeting the short and medium-term credit requirements of the members. Loans are advanced on the basis of production requirements and production improvement needs. The cash credit limit of a member is fixed once for the year on the basis of the holdings owned by him and the crops he intends to grow during the year. The cash credit limit is, however, not to exceed 1/3rd of the estimated value of the produce likely to be grown in his holdings which is treated as a member's average re-paying capacity. Once the cash credit limit is fixed, the member is at liberty to draw upto that limit as and when funds are required by him. The borrower is required to execute a cash credit agreement which also includes a clause binding him to pay back his loan by marketing his produce through the Marketing Society linking credit with marketing. Loans are to be advanced as far as possible in kind and special emphasis is to be paid towards improved utilisation of loans.

Medium-term loans are allowed for periods of 15 months to 3 years for purposes such as purchase of bullocks, milch cattle and heavy implements. For the medium-term loans not exeeding Rs. 1,000/-, the members are not insisted for mortgaging their land. Both credit and medium-term loans are advanced to a member concurrently subject to the total amount borrowed by a member not exceeding 10 times his paid-up share capital.

The non-agriculturist members are advanced ordinary short-term loans.

For unproductive purposes, such as marriages, funerals, etc., loans are to be advanced through the Chit Fund (Mutual help) Scheme. A person who wants loans for such purposes is required to be a nominal member, if he is not already an ordinary member, by paying Re. 1/- as admission fee. He must contribute Rs. 2/- per month or Rs. 12/- every six months. The Society allows 6¼% per cent interest on the amounts so received. Out of this amount, half is credited to the member's deposit account and half to a fund called 'Needs Fund' from which loans for purposes noted above are to be advanced.

The Society also works as a Rural Bank and provides facilities for fixed, savings, recurring and home-safe deposits.

There is provision for creation of an Agricultural Credit Stabilisation Fund. It is to be formed out of the dividends declared above a certain level on the shares subscribed by the State Government and the members. The amount in this fund is to be utilised in advancing medium-term loans to those whose crops have been damaged by natural calamities, such as hail-storm, drought etc.

Progress: The Project started working in February 1956. It has thus worked for about 1½ years. The progress made till 30-6-57 is, in brief, as given below :—

(1) *Membership and share capital* :—

Class of membership	At the time of amalgamation		On June 30 1956		On June 30 1957	
	Member-ship	Share capital	Member-ship	Share capital	Member-ship	Share capital
	No.	Rs.	No.	Rs.	No.	Rs.
Ordinary	983	11980	1080	13589.50	1325	19518
Special	—	—		10000.00	1	10000
Nominal	—	—		—	4	—

The State Cooperative Bank is the Special member in lieu of State participation. Out of 1325 members, 1114 are agriculturists and 211 non-agriculturists.

The enrolment of new members was encouraged during 1956-57 only in the villages and hamlets falling within a radius of 2 miles—the number of such villages and hamlets being only 30. The total number of agriculturist families in these villages and hamlets is 1708 out of which 795 families i.e. 47% are now under the co-operative fold. At the start of the Project, out of 955 individual members, 345 were such who held less than Rs. 5/- each in their share account, mostly only Rs. 2/- per member. Such members were having no transactions with the Society. Efforts were made to make them active members and by 30th June 1957, the number of such members has been reduced to 266. The Society will be splitted in 5 Societies when the membership is spread up throughout all the villages and hamlets.

(2) *Management* :—Only in 5 villages, the membership is more than 50. The remaining villages and hamlets have been associated into 9 groups. The present Board consists of 15 elected directors. The State Co-operative Bank has nominated three Directors. The average attendance in the meetings of the Board of Directors has been satisfactory. It is felt that by amalgamating the primaries into a large-sized Society, better leadership has been available. 33 Supervisory committees have been formed in different villages and hamlets to help the Board in fixing the cash credit limit of the members, proper utilisation of loans and adoption of improved agricultural practices.

(3) *Loaning activities* :—

(*a*) *Crop loans* :—A study was made in the villages of the area to find out the average expenditure of cultivation per acre for the purpose of determining credit requirements. In view of this study, the average expenditure of cultivation for different crops has been fixed as below :—

1. Wheat .. .. .. Rs. 85/- per acre.
2. Barley .. .. .. Rs. 45/- per acre.
3. Gram .. .. .. Rs. 24/- per acre.
4. Peas .. .. .. Rs. 40/- per acre.

5. Bejhar .. .. .. Rs. 35/- per acre.
6. Gojai .. .. .. Rs. 65/- per acre.
7. Juar .. .. .. Rs. 15/- per acre.
8. Lahi .. .. .. Rs. 15/- per acre.
9. Sugarcane .. .. Rs. 175/- per acre.
10. Paddy .. .. .. Rs. 45/- per acre.

In the year 1956-57, the total cash credit limit of the members fixed was Rs. 79,400/-. In the current year, the cash credit limit of the members has been fixed for Rs. 1,48,000/-. Loans are advanced at 7.81 nP. per cent interest. The position of advance and recovery of loans has been as below :—

Period	Amount advanced		Amount due & recovered		Percentage of recovery		Total
	Amount Rs.	No. of persons	through marketing Rs.	In cash Rs.	through marketing	In cash	
March 1956 to June 1956	4483	72	4215	158	94	3·5	97·5%
July 1956 to June 1957	50585	386	42481	4460	90·5	9·5	100%
July 1957 to August 1957	25796	229	—	—	—	—	—

Improved seed worth about Rs. 32,000/- has also been distributed to the members on sawai and collected by the Society as agent of the Marketing Society.

(*b*) *Medium-term loans*:—Rs. 20,855/- were advanced as medium-term loans to 133 members during May and June 1956. During 1956-57, Rs. 17,400/- were advanced as medium-term loans. The instalments due for payments in 1956-57 were realised in full—99.5 per cent being through the Marketing Society and only 0.5 per cent in cash from one member. Out of 1,080 members on 30-6-56, 495 were advanced one or the other kind of loan. The rest were not advanced any loans as either they did not need any loan or they were not eligible for any loans—their share money being less than Rs. 5/-.

(4) *Linking of credit with Improved Agricultural Practices*: As the credit can be effective only when it is utilized for maximising the production, attempts have been made to create among the members the habit for more use of compost, chemical fertilizers, improved seeds and implements. The Project area, unfortunately, is not in any active National Extension Service block and, as such, no facilities, as are available to the cultivators in an extension block, were available in this area. An effort has, however, been made in this direction by the project staff. Six varietal and 15 manurial demonstrations were laid during 1956-57. A crop competition for wheat, gram and peas was also arranged in which 56 members participated. The Society started purchase and distribution of agricultural and standard domestic requirements of the members also. During 1956-57, fertilizers and implements worth Rs. 3,054/- were sold to members.

(5) *Mobilisation of Rural Savings*:—One of the functions of the Society is to create a habit of thrift among the members and make the Society stand on its own legs. A start was made by the Society in this direction in October, 1956. Fifty-six home-safes have been issued to the members. These home-safes are opened every month. Rs. 224.81 nP. is the amount received in this Scheme

till 30-6-57. The amount received is obviously very small but the idea is liked by the members.

A 'Bachat Kumbha' scheme has also been introduced. 150 earthen 'Bachat Kumbhas' have been issued to members for depositing their day-to-day savings. (A 'Bachat Kumbha' is a small earthen pot with only a coin-wide slit at the top instead of the mouth, to permit dropping in of coins vertically). The 'Kumbhas' will be opened during the next All-India Cooperative week in the presence of the members of the Society. Two cash prizes of Rs. 10/- each, one of Rs. 15/- and one of Rs. 20/- would be awarded to those who save the highest in the following four categories of members, to serve as incentives:

(*i*) Non-agriculturists ;

(*ii*) Agriculturists owning upto 10 bighas of land ;

(*iii*) Agriculturists owning more than 10 but less than 20 bighas of land ; and

(*iv*) Agriculturists owning more than 20 bighas of land.

The savings, so received, shall be deposited in the Society as fixed deposit for one year on which 4½ per cent interest will be allowed.

(6) *Chit Fund Scheme* (*Mutual help scheme*) :—The Scheme was introduced with a view to meet the loan requirements of the members for non-productive purposes such as marriage, illness, funerals, etc. and also to meet the credit needs of the artisans. The Scheme has, however, not yet caught the fancy of the villagers. As the amount in the Needs Fund is very small, no loans have been advanced so far out of this fund. No group has come forward for an *auction chit* also. To give a fair trial to this Scheme, it is proposed to try it intensively in only one or two villages.

(7) *Profits* :—It was in the year 1956-57 that the Society worked for full one year. The tentative balance sheet of the Society, as it stood on 30th June 1957, shows a profit of Rs. 1,231/-. In a large-sized Society, it is aimed to meet the credit requirements of about 1,000 members. During 1956-57, the Society met the credit requirements only of 495 members.

(8) *Conclusion* :—The working of the Society for about 1½ years shows that it has got several advantages over the pattern of one village one society. They can be summarised as below :—

(*a*) A large-sized Society with 1,000 members can afford to keep a competent paid manager.

(*b*) Better leadership is available.

(*c*) Party factions are reduced.

(*d*) Better supervision and control is possible.

(*e*) The integration of credit with improved agricultural practices and marketing is easier in a large-sized society.

(*f*) Timely and adequate credit can more easily be provided.

(*g*) Chances of *Benami* transactions are minimised.

(*h*) Members take loan only when they need them, as they have to walk 2-3 miles for getting the loans.

(*i*) The villagers become better informed about the extension services as when they come to the large-sized society's headquarters, they are acquainted with so many things.

Marketing Society

General Information: The area of the Society extends to 84 villages and hamlets which have got Nauranga as their natural market.

There are four classes of members—'A' class membership is open to Co-operative Societies, 'B' class to agriculturists and 'C' class to dealers. The State Government is classed as a Special member. 'C' class members are not eligible for any loans. They have neither any right to vote nor are they entitled to any representation on the Board of Directors. Shares are of three kinds—'A', 'B' and 'C' of the value of Rs. 100/-, Rs. 2/- and Re. 1/- respectively. 'A' class shares can be purchased by the Cooperatives and the State Government, 'B' class by agriculturists and 'C' class by dealers.

The liability of the members is limited to the nominal value of the shares held by them.

The supreme authority vests in the general body consisting of delegates representing 'A' class (affiliated societies) and 'B' class share-holders and such representatives of Special members as may be serving on the Board of Directors. The Board of Directors consists of 12 members elected in the annual general meeting from amongst 'A' and 'B' class delegates and not more than 3 delegates of the State Government. The Board elects its own President and vice-President. No Society is to be allowed any representation on the Board unless it has invested in the Marketing Society an amount at least equal to one-tenth of its share capital.

A whole-time paid Secretary/Manager, appointed subject to the approval of the District Co-operative Officer, conducts the day-to-day affairs of the Society.

The functions of the Society are to provide marketing facilities to the members. It arranges sale of the agricultural produce on commission basis and also provides ware-housing facilities. The members are advanced upto 75% of the estimated value of the produce when they deliver it to the Society.

The produce is then held at the members' option to avoid distress sales. The Society engages in outright purchase in only special circumstances. It also works as an agent of the Regional Society for collecting loans advanced by the Credit Society. It also serves as a marketing, news and information Centre.

Progress : The up-to-date position is as below :—

Class of Members	Before conversion		on 30-6-1956		on 30-6-1957	
	Member-ship	Share capital	Member-ship	Share capital	Member-ship	Share capital
'A'	20	9,634/-	1	9,634/-	1	9,634/-
'B'	587	1,315/-	689	1,715/-	957	2,267/-
'C'	—	—	2	2/-	4	4/-

The general body consists of 18 delegates of 'A' and 13 delegates of 'B' class members. The present Board consists of 12 directors elected from amongst the delegates. The State Government, although having subscribed Rs. 10,000/- to the share capital of the Society, has not yet nominated any directors. The matter is receiving their attention. A co-operative supervisor works as Secretary/Manager and is at present paid by the Provincial Co-operative Union.

Marketing Business: Marketing business was started on April 17, 1956. The following business was done :

Particulars	April 17 to June 30, '56	July 1956 to June 1957
	Mds.	Mds.
(a) Received on pledge	1923	7459
(b) Direct purchase and sale	300	2015
(c) Sold on commission	1281	6662
(d) No. of persons involved	182	461

7·81 per cent is charged as interest on the advance made against the pledge of goods.

Generally the market rates are comparatively low in the season than a few months thereafter. The members, who had pledged their goods with the Society, therefore, got at an average Rs. 2/- per maund more.

Though there is a provision for appointment of marketing panchayatdars in the bye-laws of the Society, no such panchayatdars were appointed as members of the Supervisory Committees agreed to perform the duties of the Marketing Panchayatdars themselves honorarily. The Society earned Rs. 180/- as commission and Rs. 174/- as profit in direct purchase and sale during 2 months of 1956-57. In 1956-57, it earned a commission of Rs. 1,012/- and a profit of Rs. 667/- in direct purchase and sale. The full year's working (1956-57) shows a net profit of Rs. 800/-.

Finance: The Society has purchased 12 shares of Rs. 100 each of the State Co-operative Bank and has been sanctioned by the Bank a clean cash credit limit of Rs. 12,000 and a secured cash credit limit of Rs. 50,000 for marketing operations.

The State Government has invested Rs. 10,000 in the share capital of the Society and has also advanced a loan of Rs. 25,000 for the construction of godowns. The Society has constructed two additional godowns with a storing capacity of 5000 bags.

Seed Store: The Society is running a seed store also. The collection and distribution work is, however, done by the Regional Society as its agent. The Regional Society gets Rs. 2·31 nP. per cent as interest on the value of the seed advanced and collected for nine months.

During the year 1956-57, 2065 mds. improved seed was distributed on sawai. The collections were cent per cent and the Seed Store earned a profit of Rs. 8,701/- after paying Rs. 555/- to the Regional Society for distribution and collection of their seed.

Brick Kiln: The Society is running a brick kiln. 15 lakh bricks have been prepared during 1956-57. The sales of bricks have, however, been poor. Only 5½ lakhs have been sold during the year.

XI

DEVELOPMENT OF RURAL INDUSTRIES IN MADRAS STATE

The development of rural industries in the Community Development and National Extension Service Blocks received important attention from the State Government. With a view to developing rural industries on an intensive scale the State Industries Department was strengthened. The administrative set-up of the Industries Department is given below :—

The Director of Industries and Commerce who is generally a member of the I.C.S. or I.A.S., is the administrative Head of the Department and is responsible for the implementation of all programme of policies laid down by Government. Immediately under him there are two Joint Directors, one of whom is in charge of Technical Education and Engineering and the other in charge of small scale industries. To assist these Officers, there are separate Section Officers in the Head Office, in the rank of Deputy Directors each of whom is in charge of the following Industries:

1. Village Industries.
2. Handicrafts.
3. Ceramics
4. Glass
5. Sericulture
6. Small Scale Industries
7. Industrial Cooperatives.

The Deputy Director in charge of village industries is also in charge of the Community Projects schemes and he is assisted by two Technical Officers one for village industries and the other for industries like blacksmithy, carpentry, light metal casting etc.

Besides the above Officers, there are Personal Assistants drawn from the cadre of Madras Civil Service (Executive Branch) to assist the Director of Industries and Commerce on administrative matters and two Accounts Officers on matters relating to accounts. There is also a Propaganda Officer. There are also Instructors at Headquarters for each of the following crafts:

Handicrafts,
Bamboo and Cane,
Palmyrah Fibre,
Blacksmithy,
Carpentry,
Wool,
Leather Goods,
Ceramics,
Coir and
Light Metals.

At the District level, there is an Assistant Director of Industries and Commerce and a District Village Industries Officer for each District. To assist them, there are two Cottage Industries Inspectors, One Senior Inspector of Cooperatives.

With a view to expedite execution of the development schemes includ in the Second Five Year Plan, Government have appointed the Director of Ind tries & Commerce, as Ex-officio Additional Secretary to Government to deal w matters relating to small scale, village and cottage industries development schemes and he exercises functions as follows:

1. In respect of the schemes included in the Second Five Year Pl he will directly correspond with the Government of India, the respective All India Boards in consultation with the Fin Department and obtain their concurrence or sanction as case may be for implementing the scheme.
2. He will take orders of the State Government direct after cons ing the Development Commissioner and the Financ ment when necesary in respect of administrative and matters relating to the actual implementation of schemes.
3. In respect of schemes relating to the development of in the Community Development and National Extension blocks, the Director of Industries and Commerce as Additional Secretary to Government directly corresponds Government of India, Ministry of Community Developm other Ministries and also the All India Boards and obtai concurrence and financial assistance and sanctions the sch the implementation.

In the districts, the Community Project Officer (Industries) Erode Block Development Officers are in administrative charge of the various in schemes sanctioned in Community Project and National Extension Servic assisted by the Officers of the Industries Department. These Officers w respond with the Director of Industries and Commerce and Ex-Officio Ad Secretary or on matters relating to the industries schemes. The Comm Project Officer (Industries) Erode, who has been appointed to implemen industries schemes in the Lower Bhavani Pilot Project area is under the ad trative control of the Ex-Officio Additional Secretary to Government, I Labour and Cooperation (Special) Department.

A State Action Committee has been constituted to coordinate and industrial activities in the Lower Bhavani Pilot Project with the Additi lopment Commissioner as Chairman and the Joint Development Com Director of Industries and Commerce, Registrar of Cooperative Community Project Officer (Industries) Erode, and the Director, Small Service Institute, Madras, as Members.

The Government has so far sanctioned 108 posts of Extension (Industries) with a view to accelerate the progress in implementing sche the development of village and cottage industries in the Community and Community Development block areas. These extension officers are training in the Small Industries Service Institute and at the Khadi Boards ing Centre at Kallupatti (Madurai District) and they are posted to blocks aft cessful completion of training. So far 25 Extension Officers have und training and posted to Community Projects and Community Development areas and 80 candidates are undergoing training. The Director of Indus and Commerce is recruiting candidates for the remaining posts.

Lower Bhavani Pilot Project

In accordance with the recommendations of the Development Commissioners' Conference held in May 1955, at Simla, the Community Projects Administration selected 26 Community Projects as Pilot Project for intensive development of industries in the country. As regards the Madras State, portions of the taluks,

consisting of Gobi, Erode, Bhavani, Dharapuram in the Coimbatore District and Karur in Trichy District have been selected as Pilot Projects. These areas have been selected considering availability of raw material and local skill, existence of communications and transport and its not being a depressed agricultural area which are the conditions precedant for the fruitful growth of cottage and small scale industries.

Administrative Set up:

One Community Project Officer (Industries) in the grade of Deputy Collector, who has been specially trained has been appointed. He was until recently, in immediate charge of the several industrial schemes sanctioned and under implementation. After the Project period was over on 30-9-56, the Project was reverted into 6 National Extension Blocks with schematic staff. According to the recommendation of the State Action Committee, the administrative control of the various schemes and of the schematic staff was transferred to the Block Development Officers concerned in the reverted blocks, the Community Project Officers (Industries) exercising overall and supervisory control over the Block Development Officers in respect of the industries schemes.

A State Action Committee and a Project Level Action Committee have been constituted to review and guide the activities of industrial developments in the Pilot Project. The Committee meets once every three months. The Additional Development Commissioner is the Chairman of the State Action Committee, whereas the Collector of Coimbatore is the Chairman of the Project Level Action Committee.

Programme:

Planning of the intensive development of industries in the Pilot Project will be done by the Community Project Officer (Industries) with the assistance of the Regional Director of Small Scale Industries and Zonal representatives of the All India Board and the scheme will be submitted to Government through the Director of Industries and Commerce.

Committee for Integration of Development Schemes:

In view of the growing importance of the industrial programme, the Fifth Development Commissioners' conference held at Nainital in May 1956 recommended a standing organisational arrangement in the States for planning and coordination between the Community Development Programme and that relating to industries. Accordingly, a Committee for integration of State Development Schemes with Community Development Programme has been constituted in January 1957 with the Additional Development Commissioner and the Ex-Officio Additional Secretary, Industries, Labour and Cooperation Department as Members and the Deputy Director (C.P) as Member Secretary. The Committee is scheduled to meet once in 3 months.

Planning:

The schemes for the development of rural industries are first formulated by the Block Development Officers in consultation with the District Industries Department staff. These schemes are placed before the Block Advisory Committees and after their approval are submitted to the Director of Industries and Commerce. The Director of Industries and Commerce scrutinises the schemes and accords sanction to such of these proposals which can be sanctioned by him and submits the others to the Government. Since the Director of Industries and Commerce is himself the Ex-Officio Secretary to the Government, the proposals which are submitted by him to Government are sanctioned expeditiously.

Implementation :

The sanctioned schemes are implemented by the Block Development Officers. They are technically guided by the District staff of the Industries Department under the general supervision of the Director of Industries and Commerce. The Block Development Officers have on their staff an Extension Officer for Industries who is responsible for all industries schemes in the blocks.

Instructions to speed up the Cottage Industries programme in the development areas in the State :—

(1) The Deputy Director of Industries and Commerce who has been appointed to be exclusively in-charge of the development of cottage industries in the Community Development areas in this State will be responsible for the formulation of plans and programmes for the development of cottage industries in the development areas in consultation with the concerned Project Executive Officer or Block Development Officer as the case may be.

(2) The Project Executive Officers and Block Development Officers will be in administrative charge of the various schemes which have been or will be sanctioned in their respective areas.

(3) The Project Executive Officer or the Block Development Officer concerned should first initiate action in respect of implementation of a scheme sanctioned by arranging first for the selection of sites, construction of buildings and all other preliminary work. The building should, however, be designed in consultation with the Director of Industries and Commerce. The appointment of all non-technical staff will be done by the concerned Project Executive Officer or Block Development Officer as the case may be.

(4) After all the preliminaries are completed the Project Executive Officer or the Block Development Officer should seek the technical assistance of the Director of Industries and Commerce in respect of the implementation of the schemes. The technical guidance for the proper implementation of the scheme will be rendered by the Deputy Director of Industries and Commerce referred under item 1 above. The purchase of machinery and other equipments required in connection with the implementation of schemes will also be done by the Deputy Director of Industries and Commerce.

(5) All the technical personnel sanctioned for the schemes will be appointed by the Project Executive Officer or the Block Development Officer concerned in consultation with the Director of Industries and Commerce. The Director of Industries and Commerce will furnish the names of technical personnel to the Project Executive Officer or the Block Development Officer concerned who will issue appointment orders.

(6) The responsibility for the proper implementation of programme rests with the Deputy Director of Industries and Commerce (Cottage Industries) and the concerned Project Executive Officer or the Block Development Officer as the case may be.

(7) In the light of the above instructions the Collectors are requested to undertake a concerned drive for the implementation of all the schemes so far sanctioned under the Cottage Industries programmes as speedily as possible.

Instructions to speed up the industries programme in the Community Development areas :—

(1) All Project Executive Officers and Block Development Officers are informed that all schemes for cottage industries should be submitted through the Director of Industries and Commerce. The Deputy Director of Industries and Commerce who has been appointed to be exclusively in charge of the development of cottage industries in the Community Development areas will prepare a broad integrated plan covering the entire provision available for the Plan period in respect of all Community Development blocks of 1955 and 1956 series as already ordered in the G.O. The Block Development Officers will finalise the details of the schemes to be submitted to the Director of Industries and Commerce in consultation with the Asst. Director of Industries and Commerce within the frame work of the Plan referred to above. The Project Executive Officers and the Block Development Officers should send along with their reports to the Director of Industries and Commerce replies received by them from the Asst. Directors of Industries and Commerce, who will scrutinise the schemes submitted by the Project Executive Officers and the Block Development Officers, modify them suitably, if necessary, and obtain the orders of Government on the Schemes.

(2) The allotment under Rural Arts and Crafts and Industries should normally be utilised as indicated in para XVII of Chapter III of the Budget Manual. Beehives, chakkies for handpounding of rice etc. may however be distributed to villagers in the development areas at 50% cost as a special case.

(3) The allotment under Rural Arts and Crafts and Industries should not be diverted to any other head without the specific approval of the Government.

(4) The Project Executive Officers and the Block Development Officers should make their own arrangements for the purchase of raw materials required for the industries programme according to the rules governing such purchases. The assistance of the local Assistant Directors of Industries and Commerce may be freely availed of for purchase of raw materials.

(5) Some of the sanctioned Industrial Units could not be started immediately pending the construction of buildings for locating them. In such cases the Collectors should try to secure buildings free of rent for locating the Units temporarily. If they do not succeed in getting buildings free of rent, they will sanction reasonable rents for the buildings secured for locating the Units temporarily.

Further instructions for the preparation of the integrated plans for the development of village and cottage industries in the Community Development/National Extension Service Blocks:—

(*i*) The key or the minimum programme, recommended by the Action Committee of the Community Projects Administration sent with its letter, should be adopted with modifications to suit the local conditions in the Community Development/National Extension Services Blocks in this State.

(*ii*) Handpounding of paddy may also be included in the key or minimum programme.

(*iii*) The Deputy Director of Industries and Commerce (Community Projects) who is entrusted with the preparation of integrated plans in the Community Development Blocks should draw out a list of village industries with the number of training and production Units for the Community Development/National Extension Service Blocks. The Director of Industries and Commerce is requested to take immediate action to prepare the integrated plan for the Community Development/National Extension Service Blocks and submit them to Govern-

ment with full particulars regarding the expenditure involved, the proposed target for each scheme, the anticipated receipts and also the future working of the scheme.

(*iv*) All the Block Development Officers and Project Executive Officers are also requested to submit individual programmes in consultation with the Assistant Director of Industries and Commerce concerned, direct to the Director of Industries and Commerce for the development of cottage and village industries in their respective blocks according to the key or minimum programmes suggested by the Action Committees of the Community Projects Administration. The Deputy Director of Industries and Commerce (Community Projects) will take care to see that such schemes are fitted in suitably in the integrated plans, as and when it is finalised.

As suggested by the Community Projects Administration in their letter, the Deputy Director of Industries and Commerce is requested to assess the requirements of technical personnel envisaged with the launching of the key programme taking into account the technical personnel available and the existing training arrangements in various industries in this State. As desired by the Community Projects Administration the extent of assistance in the matter of training of technical personnel if required from the Government of India should be assessed by the Director of Industries and Commerce and reported to Government as early as possible.

XII

RURAL INDUSTRIALISATION SCHEME—MYSORE

The principal objects of the scheme on Rural Industrialisation, sponsored by Dr. M. Visvesvaraya in Mysore, are:

(1) to increase production and income from industries in every village group area into which it is introduced;

(2) to increase gainful occupations and thereby spread special working habits, self-help and collective effort among the rural population and make each village group unit a self-administering and self improving community so far as its economic activities are concerned.

This scheme is designed to serve the interests of the people in rural areas. Industries are divided into two classes, heavy and large-scale and small-scale or minor industries. The former are treated as urban and the latter as rural. Even if there are heavy and large scale industries in rural areas they may be regarded as rural because they will give employment to the village population and help to promote its prosperity.

In this scheme a district will be treated as a standard unit for the whole country. The rural area in each district will be divided into about 40 to 60 groups of villages which will be named group circles. Cities and towns are excluded. Each group will consist of 15 to 25 villages with a combined population ranging from 10,000 to 25,000. Each group circle has its own committee to manage its affairs. The reason why a number of villages are grouped together into a unit under the scheme is that a single village would be too small a unit. The taluk or sub-district into which villages are grouped for administrative purposes is much too large. A Development Committee consisting of 7 to 12 persons chosen from among the residents of the village group itself is appointed to maintain the organisation and to help the village families to carry on industries on the lines laid down in the scheme. Although the group circle will be under the supervision of the Government staff, its working establishment will be maintained by its own staff paid from its own funds. So far as industries are concerned residents of a village group circle will select their own industries. To begin with, each working family will choose its industry and work in cooperation with the members of the family and in special cases in cooperation with one or more of other fellow residents. The Development Committee will be responsible for the industrial development of the area and for all improvements connected with industries which require collective effort on the part of the local population. It will carry on an intensive drive to persuade the population of the village group to start small scale industries either by individual effort or in partnership with two or more persons or in the shape of joint-stock companies. There will be an Inspector one for each group circle to assist the committee. The Inspector is chosen by the people of the group circle themselves and is given training before he is appointed in an Instruction camp organised by the district officer or Director. The Inspector, who must be a young man, will help in the choice of new industries and in the working of the existing ones. For the first two or three years the activities of the committee and of the village population under the scheme will be chiefly confined to industries which will demand their exclusive attention. The Development Committee will be constantly engaged in collecting and maintaining working details of particular industries, chiefly where raw materials are to be obtained from and where finished products could be sold with advan-

tage. A responsible officer preferably of the I.A.S. grade should be appointed to organise and control Rural Industrialisation scheme in a district. In addition to this officer there may be according to the size of the district one assistant, designated as Superintendent and three to four supervisors to form a link between the establishment employed in the group circles and the special officer and Director. The entire staff within each district will be technically and administratively controlled direct by the Superintendent. There will be, in addition, a Representative Board of 25 to 30 leading men in each district. This Board should meet periodically under the chairmanship of the Deputy Commissioner for consultation and review of operations under the scheme.

There should be frequent meetings held in the group circle for purposes of administration, organisation and propaganda. Each group circle will select a central village for its headquarters which will be provided with accommodation of a modest character for members visiting the central village for business meetings. The people of all the villages of a group circle should accustom themselves to consult one another and produce articles for local consumption or for export to other parts of the district or outside the district for sale. Men, money, raw materials, machinery, motive power, manufacture and marketing represent most of the requirements of a rural industry of appreciable size.

An exhaustive list of industries that have possibilities of development in rural areas is given at the end of this note. A dozen or two of them can certainly be easily promoted in rural areas without any difficulty. At the commencement, the villagers may be persuaded to take up an industry which is practised with success in their neighbourhood or with which they are otherwise acquainted. Besides, every individual or family starting an industry should maintain his or its previous occupation or profession and keep on working on both the old occupation as well as new industry or industries at least for some time. A beginning may be made with an industrial occupation if not a complete industry at the outset. If no new industries are handy they may in the first instance take up those which relate to food, clothing and some work connected with house building or furniture which are all primary necessaries of life.

Regular accounts should be maintained from day-to-day and month-to-month and aggregate expenditure and receipts every quarter and year should be available. Measuring the work done or value of products manufactured should be taught to and practised by industrialists in villages. The group circle Development Committee should submit to the District authority both for every quarter and year a report of progress accompanied by statistical tables of results.

For expenditure in a group circle, the Development Committee should collect a fund not exceeding Rs. 3000/- per annum. An equivalent sum will be given by the Government. About Rs. 1200/- will be spent on the Inspector and office expenses and the balance of about Rs. 4800/- in each group circle is treated as capital available for loaning to group circle industrialists and entrepreneurs. Thus the scheme provides for an arrangement under which the Government and the people of a group circle or region may jointly provide working capital in equal proportions. The total amount for about 40 group circles in a district will be Rs. 1.92 lakhs or Rs. 2 lakhs approximately. This amount is to be deposited for each group circle in a cooperative Finance Bank which has been established and has been working for the purpose. Villagers are also expected to take shares in the cooperative Rural Industrial Financing Bank which has to be established to facilitate lending of money to persons carrying on industries in the same region. All the money collected in group circles is to be deposited as shares or in some other approved form in this bank for future use.

The scheme as described above, was first started in the later part of 1950 in the districts of Bangalore and Kolar. Towards the end of October, 1952 it was

introduced to Mandya District also. From July, 1955 the scheme has come into operation in the remaining seven districts of the State. No part of the rural area is now left out.

In Mysore, Government have been sanctioning Rs. 2½ lakhs per annum for each of the districts in which the scheme has been working. The amount actually utilised has been much less than Rs. 2 lakhs due to economic management. The amount actually spent by the Government of Mysore during the period of six years (ending 31st March 1956), since the inception of the scheme has been Rs. 38.17 lakhs including the subvention of Rs. 2.5 lakhs paid by the Government of India. The villagers have contributed a further sum of Rs. 28.39 lakhs. The estimated gross value of products manufactured amounts approximately to Rs. 10 crores during a period of six years. This shows that the villagers have been able to manufacture products worth Rs. 25 per rupee of money spent by the Government. The actual amount earned by the people in the shape of gross value of products is reported to be much larger.

One special feature of the scheme in Mysore is that the people of the rural areas concerned have made and are making a substantial contribution in money to the expenditure incurred. This indicates the ready willingness on their part to utilise or work the scheme. Some of the special features of the scheme may be briefly recapitulated with advantage as follows:—

(1) The people of each group circle contribute both to their own current expenditure on the scheme and also, in co-operation with Government, to the formation of a growing capital fund to finance loans to industries.

(2) A special Co-operative Finance Bank is established for the use and development of the capital fund. The growing capital of each group circle is deposited on this Bank. The working of this Bank has proved helpful to advance the industrial work in the two districts in which the scheme was first started.

(3) The scheme facilitates the village people operating as individual industrialists, partnership concerns, co-operatives or joint-stock companies, according to local resources and the circumstances of the industry or industries taken up.

(4) If successfully operated, the profits from industries, after meeting all the necessary expenses will go on adding to the income and standard of living of the people.

(5) As industries go on developing, the thinking and working power and the economic strength of the local population will also correspondingly increase.

(6) It is expected that the comparatively well-to-do districts will be able to relieve Government of their financial responsibility for maintaining the special organisation for the scheme, at the end of the fifth year from commencement. In the case of less advanced districts, the period may extend from six to ten years depending upon the energy and productive capacity of the people.

(7) Discipline should be maintained and modern business habits should be practised from the very commencement in all group circles as far as practicable.

Disciplined hard work—Work on Industries for about 8 hours a day and 44 to 48 hours a week—is necessary and should be insisted on.

(8) For giving training to the villagers in self-help practices, initiative and collective effort and in modern business practice, special instruction will be necessary by educated trainers. As this part of the scheme cannot be carried out simultaneously with measures which directly concern industries, it is suggested that the work connected with self-help practices may be postponed until villagers have developed some economic strength by their initial industrial ventures and are able to earn more. Until the time comes for regular training, qualified lecturers—two or three—may be appointed in a district to carry on propaganda at a reasonably small cost. If the Special Officer in charge of the District is a trusted able man, he should be given a free hand in his early struggles to rouse the ambition and activities of the village people.

(9) A unique feature that the organisation of group circles presents is that it gives opportunity to people to work in co-operation and combination with one another. Such combinations, it has been mentioned, will become very useful for promoting united effort and enterprise in numerous directions.

(10) Just as there are in India families which live a calculated life economically, comfortably and with special dignity, almost on a level with or sometimes even better than a majority of persons in advanced countries, some group circles of the description mentioned in the scheme with 15,000 or 20,000 population consisting of educated, enlightened and locally esteemed families, might, in the course of 5 or 6 years under efficient supervision and direction, come to live, as well as, or better than, the average citizen in countries like United States of America or Britain.

List Of Small-Scale Or Minor Industries

The following list gives a large variety of small-scale, minor and cottage industries from which a selection may be made in establishing new industries in rural areas :—

I. Food and Allied Industries :—

1. Agricultural implements, ploughs, ploughshares, axes, sickles, etc.
2. Bakery, biscuits, cakes, etc.
3. Bee-keeping (api-culture), honey and beeswax.
4. Bird rearing.
5. Charcoal, firewood, etc.
6. Confectionery—sweets.
7. Cultivation of vegetables, fruits and flowers (wherever possible every rural family must try to have a small vegetable and fr[illegible] garden).
8. Dairy farming—milk and milk products, such as, butter, cheese, g[illegible] and marketing the same.
9. Dehydrated fruits and vegetables—dried fruits and dried vegetables.
10. Duck breeding.
11. Fisheries (pisciculture)—fish oils, fish curing, fish canning, dry fish, etc.
12. Flours and starches.
13. Food products—spices, condiments, pickles, sauces etc.

14. Fruit canning.
15. Jaggery manufacture—gur-making from sugarcane, date palm, or palmyra, and cocoanut tree, handmade sugar, sugar-candy, etc.
16. Jams, jellies and preserves.
17. Livestock breeding—cattle, sheep and pig breeding (animal husbandry).
18. Malted foods.
19. Manures—oilcakes, bonemeal, farmyard manure, compost, etc.
20. Meat marketing.
21. Nursery.
22. Oil pressing
23. Paddy husking and pounding.
24. Plantations and grazing fields.
25. Provisions and oilman stores.
26. Poultry farming.
27. Rice and flour milling.
28. Salt manufacture.
29. Syrups, aerated water, ice-making, etc.

II. **Clothing and Allied Industries :—**

1. Apparel and ready-made clothing (including sarees, dhotis, etc).
2. Artificial flowers.
3. Aloe fibre extraction—palmyra, cocoanut fibres.
4. Bangles—glass, lac, etc.
5. Bedding—upholstery.
6. Blanket weaving.
7. Block engraving for cloth printing.
8. Brushes.
9. Button making—cut of mother-of-pearl, horns, shells, brass, tin, etc.
10. Calico printing.
11. Canvas shoes.
12. Carpet weaving and druggets.
13. Cotton ginning and pressing.
14. Embroidery, knitting, crochet and needlework, etc.
15. Filature.
16. Gunny making from jute, from hemp-jute canvas.
17. Hats and caps.
18. Hosiery.
19. Laces (also including shoe lace making).
20. Laundry and cleaning clothes.
21. Leather goods making—boots, shoes, chappals, slippers, bed-straps, etc.
22. Leather tanning.
23. Linen goods.
24. Nakki work.

25. Ornaments and jewellery (including bangles, combs, etc.)
26. Ornamental leather-craft—(money purses, handbags, etc.)
27. Sacking and sail cloth.
28. Seam quilt-making.
29. Silkworm rearing.
30. Silk reeling.
31. Silk weaving.
32. Spinning including charka.
33. Tailoring.
34. Umbrellas and umbrella hand-making.
35. Weaving—(1) cotton, (2) woollen, (3) khadi, (4) jute, (5) matka, etc. hand and power looms.
36. Woollen fabrics—woollen goods.
37. Wool clipping and grading.

III. **Housing and Allied Industries :—**

1. Bamboo work including garden furniture.
2. Bell metal work.
3. Brick and tile making.
4. Cane furniture—also cane and basketware, matting.
5. Candles.
6. Carpentry and cabinet making.
7. Carving—ivory, wood and stone.
8. Cement industries for village purposes—windows, ventilators, benches, drain pipes, water closets, fencing, etc.
9. Ceramic industries—crockery, chinaware, etc.
10. Coir—coir-making, rope etc.
11. Cutlery—hardware.
12. Furniture manufacture—cots, benches, railway sleepers, etc.
13. Glass articles—window screens, etc.
14. Hardware such as hinges, tower bolts, etc.
15. House building, various occupations connected with it including building materials such as, bricks, tiles etc.
16. Leaden goods.
17. Lime burning.
18. Lock-making.
19. Maintenance of a workshop.
20. Metalware—vessels of iron, steel, copper, brass, aluminium, etc.
21. Paints.
22. Picture frame-making.
23. Pottery—village pottery and clay products.
24. Smithy.
25. Stone jug-making.
26. Stone work—including grinding stones, stone carving.

27. Timber work.
28. Tin plate goods.
29. Tin goods.
30. Trunk-making.
31. Woodenware—wooden sandals, vessels, etc.
32. Wood-sawing.
33. Wooden boats.

IV. **Miscellaneous and Unclassified Industries :—**

1. Agarbathi making.
2. Articles used in games and sports.
3. Bidis-also tendu leaves (for manufacturing bidis), its curing, pressing and packing.
4. Bicycle repairs.
5. Cardboard box-making.
6. Casing tubes.
7. Cigarettes, cigars, etc.
8. Clay modelling.
9. Crayons.
10. Cutlery—edge, tools, files, saws, knives, etc.
11. Drugs and medicinal herbs.
12. Dry cells for electric torches.
13. Dyes—vegetable dyes and pigments.
14. Electrical casing.
15. Electro-plating.
16. Engraving on metals.
17. Enamelling.
18. Fire works.
19. Fly-shuttle looms-making.
20. Glass and glasswares (those not included in house-hold industries).
21. Glue, gelatine and resins.
22. Gold and silver smithy, wire drawing.
23. Hand-made paper and pulp.
24. Handstick-making.
25. Hides and skins.
26. Horticulture.
27. Images.
28. Inks, ink-pads (for rubber stamps), etc.
29. Kattha making.
30. Lacquers, varnishes and paints.
31. Lapidary work.
32. Manufacture of containers.
33. Matches—match factory on a co-operative basis.
34. Mats—bamboo mats, mora mats, screen pine mats, palmyra mats, etc.

35. Marbles—slate stones, slabs (slate sheets).
36. Metalwares including precious metals.
37. Mica splitting.
38. Motor body building.
39. Musical instruments—stringed or reed.
40. Painting on planks and glass.
41. Pearl fishing.
42. Pencil-making, lead pencils, slate and slate pencils.
43. Perfumery—essential oils and scents.
44. Pith works—pith hat, garlands, flowers, etc.
45. Printing and allied trades—book-binding. block-making etc.
46. Road and drain construction—village water supply construction and repairs.
47. Rubber goods and latex.
48. Scissors.
49. Shellac or lac—resin and turpentine.
50. Shoe and boot polishes.
51. Soap-making.
52. Straw, feather and hair industries.
53. Surgical instruments.
54. Tanning materials.
55. Tobacco for chewing, smoking, including tobacco curing, pressing and packing and snuff-making.
56. Toys and dolls—of wood, cloth, marble, ivory, bones and horns.
57. Travel agencies and facilities.
58. Vehicles for land transport—bullock carts, tongas, jutkas, etc.
59. Vehicles or water transport—boats, raft, etc.
60. Watch repairing.

XIII

SMALL SCALE PRODUCTION OF CRYSTAL SUGAR—U.P.

The small-scale production of crystal sugar in India has got all the advantages that make it singularly suitable for its establishment as a small-scale rural industry. The sugarcane holdings are small and scattered in India. The labour is plentiful and there is a huge and growing local consumption. It is a self-paying labour-intensive industry. The return to the cultivator from sugarcane in the areas not covered by large-scale factories is extremely low as most of the cane has to be converted into gur which does not bring more than about annas 10 to 12 per maund of sugarcane as against about Rs. 1.5.0 to Rs. 1.7.0 per maund of cane delivered to sugar factories. Further gur could not be stored for more than a year without deterioration and sometimes it has to be disposed of at a heavy loss. There is also growing evidence that there is increasing tendency for the replacement of gur by crystal sugar. Unless the production of crystal sugar is increased in keeping with the growing demand, India shall have to import large quantities of foreign sugar. The relative cost of production and sale price of various products viz. gur, khandsari sugar, crystal sugar (large-scale) is given below to show why the small-scale production of crystal sugar is more lucrative than others :—

	Gur	*Khandsari Sugar*	*Crystal Sugar Small scale*	*Crystal Sugar Large scale*
	Rs. ans. ps.	Rs. ans. ps.	Rs. ans. ps.	Rs. ans. ps.
Average prevailing price of cane per maund.	0 10 0	1 0 0	1 0 0	1 7 0
Cost of 100 maunds of cane	62 8 0	100 0 0	100 0 0	143 12 0
Process and other cost of manufacture	26 9 0	30 0 0	45 0 0	64 0 0
Total cost of manufacture on 10 maunds basis.	89 1 0	130 0 0	145 0 0	207 12 3
Cost per maund of product.	8 14 6	21 0 0	19 5 0	20 12 0+ 4 0 0 (excise)
Average sale price	10 0 0	22 0 0	26 0 0	30 0 0
Net profit	1 1 6	1 0 0	6 11 0	5 4 0
Product obtained from 100 mds. of cane (in maunds)	10. 0	6.2	7.5	10. 0

The growing demand for crystal sugar, relatively low cost of production of crystal sugar on a small basis and the greater profit that this industry is likely to fetch are the main factors which impelled the Government of U.P. to envisage a pilot project under its Planning Research and Action Institute for the small-scale production of crystal sugar in rural areas.

The Planning Research and Action Institute has therefore envisaged the establishment of small scale crystal sugar units all over U.P. As a first step in this direction, a unit of this kind has been opened at Ghosi in Azamgarh District with one thousand cultivators forming into a cane society; bye-laws for the formation of this unit have been drawn up and about Rs. 31,000 of capital has also been raised. Layout work was started on the 25th September, 1956 at Ghosi and the plant started operation on the 19th December 1956. The organisational pattern of the project will be on a cooperative basis involving the maximum possible involvement

of cane growers. To ensure success to the project it is essential that the cooperative organisation which will own and operate this project should be a producers organisation. A Cooperative Processing and Marketing Society (C.P.M.S.) with the cane-growers as its members, will be organised in the area with its headquarters in a centrally located village. The C.P.M.S. will run the plant for the production of crystal sugar on a small scale and will also combine better farming processing and marketing functions. For getting production loans (crop loans), growing sugar-cane, members will be advised to join the primary large-sized credit society of the area in accordance with the pattern suggested by the All-India Rural Credit Survey Report. There will be two kinds of membership open only to cane-growers cultivating not less than half acre of sugarcane in the area of operation of the society. Special membership is open to the State Government and to such Cooperative Societies as may be approved by the Registrar provided they agree to subscribe and pay in full towards the share capital of the society in such numbers as may be approved by the Board of Directors of the Society. The growers will enter into a contract with the Society binding them to carry out the plan, programme and methods of cultivation as directed by the Board of Directors and to sell their cane of required standard to the Society. The authorised share capital of the Society will be Rs. 90,000 of which Rs. 60,000 will have to be paid immediately. Each ordinary members will have to purchase at least one share whose value will be Rs. 150. Supply of sugar cane accepted for each member will be in relation to the number of shares possessed by the member. The shares for the remaining Rs. 30,000 will be contributed by special members viz., Government etc.

For running the project 700 maunds of sugarcane will be required for 100 days. That means 180 acres of cane cultivation may be necessary within five miles radius. The production can be consumed within 20 miles radius. Thus in a district there can be 20 to 25 units easily depending on the availability of sugarcane. The total financial requirement will be Rs. 1,00,000 out of which Rs. 60,000 will be share capital. The rest will be arranged as long term loan from Government State Industrial Finance Corporation and the District/Central Co-operative Bank. The workers to be employed per season would be roughly 50.

The units can be best located in those areas which are predominantly gur producing and have got scattered sugarcane cultivation. 200 acres of good quality sugar-cane should be available within a radius of five miles of the location of the unit which should preferably be at a rail head or a mandi. The cultivators should be able to collect Rs. 30,000 as share capital. The local cooperatives should have competent and honest management and the area should be preferably 50 miles from the nearest sub-gur mill.

The open pan method for making khandsari sugar tried at Ghosi offers several characteristics such as the following: It offers employment to labour at a time when it is not otherwise engaged for 4-5 months from November to March. Capital investment is moderate. Total investment in this enterprise came to Rs. 1 lakh (Rs. 89,000 as fixed investment and Rs. 11,000 as working capital).

In the first year when only 21,000 mds. could be crushed there was a loss of Rs. 1,000 to 5,000. When the full 70,000 mds. (the plants' capacity) are crushed the anticipated profit of 8-9% would materialise. Over-all recovery was 70%. Price paid for sugarcane to cultivators for some 21,000 maunds was Re. 1 per maund as compared with annas 12 obtained from gur. Employment was provided to 15 skilled persons and 65-75 unskilled persons normally for some 5 months. The unskilled were paid Re. 1/- per day and the skilled from Rs. 40/- per month upward averaging approximately Rs. 60/-. Invested capital worked up to about Rs. 1250 per person employed or Rs. 2500 per man year. It appears evident that

this industry has a welcome place in the economy of a large number of cane-growing areas. Whether there is an adequate market demand of a desirable type is being investigated. It has been suggested that several units in such an industry should form an association in which each contributes a competent manager and a qualified technician should be employed whose job it will be to keep in touch with business, market and technical development in the field.

The manager and the technician so recruited will regularly visit plants and give advice. They will have no executive control over any plant but they are expected to give high calibre advice and criticism which will certainly introduce economies and technical improvements in the industry.

XIV

WORK DONE IN KERALA STATE IN THE IMPLEMENTATION OF THE VARIOUS HEALTH PLANS

Training Programmes

(*i*) *Nurses.* A training course for Nurses was started in the State in 1954-55 at Trivandrum and Ernakulam with 75 admissions in each in the first session. It is proposed to organise a similar course at Kozhikode also very shortly for a batch of 25 students.

(*ii*) *Auxiliary Nurse Midwives.* During the First Plan period 167 girls were trained in Midwifery in 4 institutions. The number of teaching centres was augmented by 3 more in the First Year of the Second Five Year Plan. The first batch of 98 pupils commenced their training in March this year followed by 78 more from the 15th of October 1957. It is proposed to start a Midwifery course at Kozhikode also from the beginning of the next financial year for 50 students, 25 being admitted at the inception and the remaining batch after 6 months. The physical target for the Second Plan is about 500 midwives to be trained in all the 8 institutions together.

(*iii*) *Health Visitors.* A Health Visitors' School was organised at Trivandrum in 1956. Thirty-seven senior midwives in service were admitted to the course (extending over a period of one and a half years) and it commenced from 5th July 1956. Two more batches of 30 each will be trained in the course of the next 3 years of the Second Five Year Plan.

(*iv*) *Health Inspectors.* During the early part of the First Five Year Plan a Health Inspectors' Course was instituted at the Trivandrum Medical College. Two batches of 30 each were trained by the close of the First Plan. In 1955-56, in addition to the regular students 10 departmental and 5 Municipal candidates were also given a short term training of 3 months duration. The number of admission was increased to 50 in 1956-57. The turn out uptil now is 125 Health Inspectors and a fresh batch of 50 are undergoing training now.

(*v*) *MCH training for Doctors.* One lady Assistant Surgeon had her D.M. & C.W. Course at Calcutta in 1956-57 and two have been deputed for the course this year.

(*vi*) *D.P.H. Course for Assistant Surgeon.* The Assistant Director of Public Health (M&CH) attached to this Department was deputed to the United Kingdom for the D.P.H. Course in 1956-57. One Medical Officer was sent for this training at Calcutta during the same year. Two doctors have been deputed for the current session of the course.

(*vii*) *Family Planning training.* Ten midwives were given a short term course of one month's duration in Family Planning at Trivandrum in 1955-56 and ten midwives and 10 doctors in 1956-57. Ten more midwives will be trained very shortly. It is proposed to train 80 Family Planning Health Visitors during the II Plan period.

(*viii*) *Other categories trained.* Four Public Health Nurses were deputed to Calcutta for the certificate course in Public Health Nursing. 3 Health Education Officers for the Certificate Course in Health Education and 5 doctors, 19 Health Inspectors, 19 Health Visitors, and 38 midwives for re-orientation training in Community Health Work at Poonamallee. The Assistant Director of Public

Health (M&F), one Entomologist and 22 Field Assistants of the Malaria Division of the Department were trained in Filariology and 7 Malaria Inspectors in Malariology at New Delhi.

Primary Health Units and Primary and Secondary Health Centres

(*i*) *Health Units and Health Centres before the First Five Year Plan.* In T.C. area there was only one Primary Health Unit prior to 1951, at Neyyattinkara and this was practically abolished in 1952.

In Malabar area Six Primary Health Centres were functioning in the pre-plan period under the post-war Reconstruction Scheme.

(*ii*) *Health Units and Health Centres during the First Five Year Plan.* By the close of the First Plan period there came into being 28 Primary Health Units in rural areas, 6 Primary Health Centres in Community Projects, 2 Health Centres in N.E.S. Blocks and 2 Secondary Health Centres, in the T.C. area and one Primary Health Centre in Malabar area.

(*iii*) *Health Centres and Health Units during the Second Five Year Plan.* In the First Year of the Second Five Year Plan 9 Primary Health Centres and two Secondary Health Centres were started in the State. The Second Five Year Programme aims at starting 9 Primary Health Centres and 2 Secondary Health Centres. The Second Plan target is 90 Primary Health Units and 16 Secondary Health Centres.

Malaria and Filariasis Control

(*i*) *Malaria Control.* The two National Malaria Control Programme Units allotted to the State by the Government of India during the First Plan period continue to operate.

(*ii*) *Filariasis Control.* (*a*) Two National Filaria Control Programme Survey Units were allotted to the State under the National Filariasis Control Programme launched by the Government of India during the First Plan period. One of these Units began to function in 1955-56 and the other came in position only in the First year of the Second Plan.

(*b*) *Control Units.* Five-eighth of a Control Unit was operating in Malabar during the First Plan Period. The one Control Unit allocated to T.C. area during the First Five Year Plan could be organised only in 1956-57. Two more Control Units were sanctioned for 1956-57 and all these Units now operate in different parts of the State. For 1957-58 three Units have been sanctioned, the location of which has not yet been finalised by Government.

T.B. Control

(*i*) *BCG Vaccination.* In the First Five Year Plan period 4 BCG teams were functioning in the State. This has been augmented by one more Unit this year. The first round of BCG Vaccination was completed by the beginning of January 1957 and the second round is now in progress commencing from Malabar. Thirty lakh persons were BCG vaccinated during the First Plan period and about 6 lakhs during 1956-57.

(*ii*) *T.B. Hospitals.* At the beginning of the First Five Year Plan, i.e., in 1950, there was only one T.B. Hospital in the State at Nagercoil. This was subsequently transferred to Madras State.

In 1950-51 another T.B. Sanatorium came into existence at Mulakunnathukavu in Trichur District with 118 beds. These were augmented by 66 during the First Year of the Second Plan.

Another T.B. Hospital has been opened at Trivandrum with 116 beds very recently at Pulayanarkottah.

(*iii*) *T.B. Clinics.* During the First Plan period 2 T.B. Clinics were opened each having 24 beds attached to Government Hospitals at Trichur and Palluruthy and one T.B. Clinic with 12 observation beds attached to the T.B. Demonstration and Training Centre started in Trivandrum in 1951-52.

In 1953-54, three T.B. Seal wards each with 12 beds were opened. The total bed strength in all the above T.B. institutions together stood at 374 at the close of the First Plan period excluding the T.B. Hospital, Nagercoil.

The Second Plan envisages the provision of 1747 beds for the treatment of T.B. patients, out of which 170 have already been provided.

Establishment of 11 T.B. Clinics and 313 isolation beds is proposed in the Second Plan. Two T.B. Clinics were sanctioned in 1956-57 and steps have already been taken to construct buildings for the Centres. The current year's sanction is 3 T.B. Clinics and action is being taken to start them immediately.

The Norwegian Indian Foundation has agreed to construct a T.B. clinic at Quilon with all laboratory equipment and X-ray plant.

There is a proposal to take over an existing private T.B. Sanatorium in Malabar and improve and expand it to meet the needs of that area.

(*iv*) It is proposed to open 2 Rehabilitation Centres attached to the T.B. Sanatorium at Mulakunnathukavu and the T.B. hospital at Trivandrum each accommodating 50 persons.

Leprosy Control

(*i*) *Hospitals.* One Leprosy Hospital at Koratty in Trichur and a Leprosy Sanatorium at Nooranad have been in existence even prior to the First Five Year Plan with a total bed strength of 1080. It is proposed to increase the bed strength of the former to 820 and establish a Leprosy Colony for 500 burnt out cases attached to the latter during the Second Plan as also a Home for the healthy children of Leprosy patients, with financial aid offered by the International "Save the children" Emergency Fund.

(*ii*) *Leprosy subsidiary Centre.* The Second Plan envisages the establishment of 11 Leprosy Subsidiary Centres in various parts of the State, out of which one has already been opened at Ponnani in Malabar area.

V.D. Control

V.D. clinics are now conducted at the General Hospital, Ernakulam and the Medical College Hospital, Trivandrum. The revised Kerala Second Five Year Plan envisages the opening of 5 V.D. Clinics attached to all the District Hospitals.

Environmental Sanitation

(*i*) *Pilot Projects.* Sanitary type of private and public latrines, are constructed by the Pilot Projects in the Medical College Unit area, Trivandrum. Water Seal Closets are sold by them to private parties at subsidised rate.

(*ii*) Construction of public latrines and wells is pushed on in all N.E.S. Blocks in the State. Water Seal Closets are also sold at subsidised rate.

The Public Health Engineering Section attached to the Department of Health Services also attends to the construction of public latrines in rural areas

and the sale of water seal closets to private individuals at subsidised rate fixed by Govt.

Water Supply Schemes

Open draw wells are constructed in rural areas by the Public Health Engineering Section of this Department and tube well construction and major water supply schemes are arranged by the Public Health Engineering Department.

Family Planning

(i) *Family Planning Clinics.* Ten Family Planning Clinics were started in 1955-56 in the rural areas of the State under a subsidised scheme of the Government of India. In the first year of the Second Plan 10 more clinics were opened. Arrangements are now in progress to start 10 clinics in some of the urban towns of the State. The Second Plan envisages the establishment of 70 Family Planning Centres.

(ii) *Training Centres.* The opening of a Family Planning Training Centre at Trivandrum with financial aid from the Central Government is under consideration.

At Present the personnel for Family Planning work are trained at Trivandrum by the Superintendent-in-charge of the MCH work of Trivandrum Corporation, who has undergone training in Family Planning work at Bombay.

(iii) *Family Planning Board.* A Family Planning Board has recently been constituted in the State.

(iv) Proposals have been sent up to Government for the appointment of a Family Planning Officer having State wide jurisdiction. This post has now been sanctioned.

Upgrading Of Medical Institutions

(i) *Improvements to Taluk Headquarters Hospitals.* It is proposed to upgrade 15 Taluk Headquarter dispensaries into Taluk Headquarter Hospitals by providing additional accommodation. Accordingly 2 Dispensaries have been upgraded during 1956-57. As for the 1957-58 programme 4 Dispensaries will be upgraded.

(ii) *Improvements to major Hospitals.* Eight Hospitals will be improved during the Second Five Year Plan period by providing additional accommodation. Two Hospitals are being taken up for improvement during 1957-58.

Public Health Education

The Health Education Section transferred in 1950 to the Department of Public Relations has recently been retransferred to this Department and intensive propaganda and health education area carried out by this Section.

In addition to the existing teams of one Chief Health Education Officer and 2 Assistant Health Education Officers, Government have now sanctioned, one more team consisting of a District Health Education Officer and one Health Educator with necessary equipment and a van to the operating staff for Malabar area, under the Second Five Year Plan. This team has already been organised and commenced functioning from October 1957.

M.C.H. Services

(i) *MCH Centres.*

(a) *Position during the First Plan.* During 1950-51 the T.C. area had 187 Midwifery Centres. At the close of the First Plan this stood at 301.

In 1954, six MCW Centres were started in rural areas attached to Government Dispensaries with financial assistance from the Central Government.

Maternal and Child Health Services throughout the State were co-ordinated into a separate section of the then Public Health Department and placed under the control of an Assistant Director of Public Health during the latter half of the First Plan period.

In 1954, the State entered into an agreement with the WHO/UNICEF as per which a MCH Project was implemented in the State and this Project has considerably helped to expand and improve the Maternal and Child Health Services of the State.

(*b*) *Position in the Second Five Year Plan.* In the first year of the Second Plan 25 MCH Centres in T.C. area and 16 Centres in Malabar area were started. Arrangements are in progress for opening 6 MCH Centres, allotted for 1957-58. Paucity of midwives hampers the establishment of more centres this year. Midwives have now been posted to the 20 M.C.H. Centres that remained unopened during 1956-57 from the quota sanctioned for that year.

(*ii*) *Maternity Homes.* This Scheme was included only in the Second Plan. Out of the 4 Maternity Homes targetted for 1956-57, only one has come into operation. Non-availability of resident Matrons and Midwives to staff the institutions stands in the way of opening the other centres.

All the normal activities of the Department on the Public Health side such as the control of communicable diseases, Registration of Births and Deaths (later on brought under the II Plan), Rural Sanitation, Vaccination, Health Education, enforcement of Public Health laws and rules were continued with satisfactory progress. Since 1954 the State has been completely free from Cholera, and Small-pox has not made its appearance in a virulent epidemic form since 1953. Plague is practically unknown in the State since the last 10 years.

Public Health Schemes in N.E.S. Blocks

Ten N.E.S. Blocks were declared on 1.10.1956. The Public Health activities in these Blocks are at present confined to improvements of environmental sanitation, viz., construction of sanitary wells and latrines. The sites for Primary Health Centres in these Blocks have not been decided. The State Government have ordered the conversion of one of the existing dispensaries in each Block to a Primary Health Centre. Public Health activities have not been started as extension work in the ten Blocks started this year.

In the Health Centres started in C.D. Blocks, the Medical Officer-in-charge of the Health Centre has been appointed as the Health Extension worker and member of the Block Development Committee. All the Health articles of the Health Centre of the Block are brought under the control of the Medical Officer-in-charge of the Health Centre. Health Assistants working in the Health Centre area are supervised by the Health Inspectors of the Health Centre.

Among the various activities in the Blocks, the improvement of soil sanitation receives greater attention. Lack of sufficient number of sanitary type latrines is one of the main reasons why the soil gets polished with human excreta and urine. Great importance has therefore been attached to the schemes for the construction of sanitary type latrines in the Block areas.

The final aim is that each house should have a sanitary type latrine. A uniform policy is adopted in the implementation of schemes for the construction of latrines in all the Blocks. Water seal squatting slabs either manufactured by the Block or got down from other sources, approximately costing Rs. 10/-

each are distributed to bonafide users in the Block areas at 25% cost, the balance 75% being met by the Block. Covering slabs are also made available on actual cost. The parties have to bear besides the 25% cost of W.S.S. slab and cost of covering slabs, the cost of the construction of the latrines according to the specifications supplied by the Block. They will get the necessary technical assistance also from the Block.

Schemes for the construction of sanitary type latrines and urinals in schools in the Block area is also undertaken by the Blocks. It has been laid down that of the total expenditure incurred on such schemes, only an expenditure subject to the maximum of 75% should be met by the Block. The balance will be met by the concerned institutions. This portion can ordinarily be met by labour or supply of materials. Usually the scheme is taken up by the Block, only a formal assurance is obtained from the institutions to the effect that they would meet at least 25% of the total cost.

The following schemes also come under the P.H. Programme of the Blocks :—

(1) Drinking water supply—construction of new wells and renovation of old wells and tanks.

(2) Construction of bathing ghats.

(3) Opening of midwifery Centres.

(4) Issue of Grant-in-aid to existing dispensaries and midwifery Centres.

XV

HEALTH FORTNIGHT IN RAJASTHAN

Intensive work on the following activities will be taken up in all C.D. and N.E.S. blocks.

1. Survey and treatment of rickety and under-nourished children.
2. Survey of common diseases, their incidence and preparation of a plan for prevention measures against such diseases.
3. Environmental sanitation and cleanliness of village and individual houses.
4. Mass vaccination.
5. Anti-Guineaworm work.
6. Anti-malaria work.
7. Baby shows.
8. Surgical Camp.
9. Health Education and Exhibition.

Treatment of Rickety and Under-nourished Children

Programme for survey of sick, under-nourished and rickety children would be drawn up for three V.L.Ws circles in blocks covered during the last fortnight. Two out of these three circles will be those which were covered during the last fortnight. The additional one circle will be selected in the vicinity of the existing dispensary/Primary Health Centre by the B.D.Os in consultation with the Block Medical Officer and/or Medical Officer of the dispensary in the block. In new blocks only one V.L.W. circle will be taken up. Children up to 10 years of age should be selected.

Preliminary survey of sick, under-nourished and rickety children would be done by V.L.Ws on the proforma given to them. The Medical Officers for this purpose will give a preliminary training to the concerned V.L.Ws so as to help them in carrying out the survey correctly. The survey papers will then be submitted to the medical officers by the V.L.Ws direct with a copy to the B.D.O. The medical officers will then carry out a final survey of such children and will simultaneously start the treatment to the children so selected.

Feeding programme consisting of milk and multi-vitamin tablets should commence from the beginning of the fortnight and be continued on long term basis. Arrangements for supply of milk to the various blocks have already been made (through B.D.Os) and a list of the milk supplied to each of them is being sent separately by the Development Department. The Medical Officers will ensure that the feeding programme is regularly continued on long term basis and for this purpose assistance of the following persons in the villages, whosoever is available should be obtained.

1. V.L.Ws.
2. Gram Laxmis.
3. School Teachers.
4. Sarpanch.
5. Panch.

6. Patwari and
7. Representative of Bharat Sewak Samaj.

It has been reported from many quarters that multi-vitamin tablets are not easily swallowed by the children and, therefore, a substitute in form of liquid preparation, should be supplied. In this respect it is desired that the M.Os would please arrange to administer the tablets in powder form which could easily be crushed and administered. In case milk is not relished by the children, it could be used in the form of curd. But for this purpose it will have to be ensured that the curd so prepared is utilised for the bonafide use of undernourished children only and not for the other members of the family. This would, however, place greater responsibility on the supervising personnel in its preparation and bonafide use which, in case they are prepared to undertake, such a procedure may be tried.

Children selected for such a treatment should be entered in the register, already supplied, during the last Health fortnight. Progress reports in respect of height, weight and chest measurements should be sent quarterly to this Directorate for each child. In the initial report, names and other particulars of the children will have to be sent but in the subsequent quarterly reports, only the serial numbers of the children should be indicated with the required particulars so that the same would be recorded in the Directorate records. In these reports remarks regarding general conditions for each child should also be given. Discontinuance of the feeding programme should be adequately accounted for e.g. child leaving the block or due to his or her death.

Likewise quarterly reports of the number of beneficiaries being fed on long term programme in each block along with the stock of milk consumed and the stock in balance should be sent to this Directorate by the B.D.Os.

Assistance of V.L.Ws for drawing up these reports by Medical Officers may advantageously be taken.

The Medical Officers will pay regular fortnightly visits to the selected villages in the blocks for 'follow-up' work and record the progress of health of the beneficiaries in the registers, already supplied.

During their visits they would also, as far as possible, attend to other sick and ailing persons if any and give them feasible treatment. They will carry medicines with them for the purpose.

Survey of Common Diseases

The object of undertaking the survey of common diseases in blocks is (1) to provide adequate treatment to the sick and (2) to chalk out a health plan so as to minimise the incidence of such diseases as far as possible. This should be adequately implemented. Health Plan on basis of last year's survey be prepared.

In the twenty new blocks added to the programme, this year, medical officers will carry out a survey of the common diseases in these blocks. They would visit two villages in four to five village level worker circles in order to carry out the survey. Block vehicle will be made available for this purpose. After having done this, a plan for preventive and curative measures shall be prepared by the Medical Officers in consultation with the District Medical Officer and Block Development Officer, concerned.

Environmental Sanitation

Activities under this item should exactly be the same as were carried out during the last fortnight, viz.

1. Removal of refuse heaps.
2. Improvement of environmental sanitation.
3. Filling up of pits.
4. Digging of compost pits for putting village refuse.
5. Construction of drains pucca/kutcha near drinking water wells.
6. Construction of soak pits.
7. Competition for the best house in the village in each V.L.W. circle and in each block.

Greater emphasis should, however, be laid to the general cleaniness of the village by removing refuse heaps either to fields or to other pre-determined places. B.D.Os would take necessary action in this respect. Refuse from individual houses should be dumped in compost pits in respective Baras if so available. The best cleaned houses should be determined as per last Health Fortnight programme for award of prizes in clean house competitions.

The points for judging the best house would be :

1. General appearance and cleanliness ;
2. Arrangements for disposal of cow dung and other refuse in the house ;
3. Arrangements for light and ventilation ;
4. Drainage arrangements.

Committees at V.L.W. circle, block level and district level for judging the best house will be constituted. 3 flags will be given as prize at all these levels. These flags will be of khadi and will be arranged from the Head Office Development Department and will be sent to the blocks well in time. The owners of the best houses will display these flags till the time of the next competition.

Besides, the sanitation of the wells should be given top priority and drainage around the wells should be adequately provided. It has been decided in the recent seminar of the B.D.Os and Block Medical Officers of Jaipur Division that while sanctioning grants-in-aid for repair or construction of a well it should be made conditional that the well repaired or newly constructed should conform to the approved pattern of a sanitary well.

Mass Vaccination

It would be worth while to launch a mass vaccination programme during this Health Fortnight in the blocks. In this connection the administrative medical officers will arrange to provide lymph in adequate quantities and they would pool the services of their district vaccinators and sanitary inspectors to work conjointly at a time in a block and switch over to other block as soon as the work in one block is completed. It is expected that primary and revaccination will be done in as large numbers as possible. Returns of these vaccinations should be sent to the Directorate as early as possible after the Health Fortnight.

Anti-Malaria Work

Anti-malaria work should be undertaken in only those blocks which have so far been covered by the N.M.C.P. viz. blocks in Jodhpur, Udaipur and Kotah Divisions and Bharatpur & Alwar District. The B.D.Os will privide vehicles in the form of jeeps with trailers for transport of D.D.T., equipment and personnel for this purpose in their respective blocks. This programme should be chalked out by the medical officers in charge of N.M.C.P. in consultation with the

B.D.Os. They should cover such block villages which are mostly endemic area for malaria.

Since it is likely that the demand of block vehicle for different purpose may be pressing, it is suggested that alternative arrangements for transport for anti-malaria articles particularly the D.D.T. and equipment be made through people's participation, if such an exigency arises.

Anti-Guinea Worm Work

Great emphasis should be laid on anti-guinea worm work during this Health Fortnight. In this respect, a circular has already been issued by the office of the Development Commissioner to all B.D.Os for preparing a list of villages in which incidence of anti-guinea work is very high. The B.D.Os will also prepare a list of wells in the villages which are undertaken for the purpose. It is intended to launch this programme in two directions: (1) temporary measures by way of super-chlorination of water in wells and Baoris. This is to be done by mixing bleaching powder in the ratio of 1 oc. to 100 gls. during the night. This treatment is to be given thrice during the Health Fortnight. (2) Conversion of step wells into draw wells. This programme, which is to be initiated during the Health Fortnight, is to be carried through on long-term basis. In order to achieve the desired success in this respect a vigorous and effective educative drive will have to be undertaken, so as to obtain active cooperation of the villagers by removing whatever prejudices they may have against such conversions. One of the essential features in the conversion of step wells into draw wells would be to provide adequate facilities by way of pulley with a bucket and chain for drawing the water from wells. This conversion work is to be undertaken by the B.D.Os who would be provided with adequate finances, and arrangements in which respect are being made at the State level.

Baby Shows

Baby Shows are to be organised exactly in the same way as it was done in the last fortnight. This should be arranged at:

1. V.L.W. Circle level
2. Block Level
3. District Level.

Prizes according to the scales indicated below should be awarded:

1. For competition at village level .. .. Rs. 2/-
2. For competition at block level .. .. Rs. 14/-
3. For competition at district level .. .. Rs. 30/-

The B.D.Os will raise funds for meeting expenditure to be incurred on prizes to the competitors. If finances to a large amount could be raised, scale of prizes may also be increased. Those prizes will consist of utility articles for V.L.W. circle level and block level. Cups or shields may be awarded at district level.

Competition for the Baby Shows at V.L.W's circle level and block level should be for infants (children up to 1 year's age) and toddlers (children in the age group of 1-5 years) while at the district level, it should be only for toddlers. Transport for competitors at the block level and then to district level shall be arranged by the B.D.Os. Children adjudged best in order of merit viz. first, second and third at V.L.W's circle level will be sent to the block level babyshow and likewise those adjudged the best—first, second and third—will be sent to district level baby show. Arrangements should be done by the B.D.Os by the end of

September to purchase the prizes. A panel of judges in block and district levels should include non-Officials such as M.L.As and/or M.Ps of the block and districts in addition to the District Medical Officers and District Development Officers. At the V.L.W's circle it may not be possible for the medical officers to go round each village and, therefore, he may depute one of his senior compounders to take part in the selection of the healthy children. He would assist a committee to be constituted for the purpose by the B.D.O.

Surgical Camp

Surgical camp will be organised by the Superintendent, Surgical Mobile Unit at Paota (Bassi Block) in Jaipur Division with effect from 6th October. Necessary arrangements in this respect will be made from Headquarters. The B.D.O. Bassi will, however, render all necessary assistance in the organisation of the camp.

Health Education & Health Exhibition

The period of Fortnight should be devoted for launching a mass scale health education drive by means of popular talks, lectures, posters, leaflets, magic lanterns, cinema shows and health exhibition. The educative drive should preferably be taken up a fortnight earlier to the commencement of the health fortnight drive, so that the requisite tempo could be created for the successful implementation during the period of the drive. The B.D.Os will organise popular talks in the villages through the agency of village leaders, M.L.As, M.Ps or any other social workers. A brief note on the subject of talks will follow. This will help in making the people aware of their health and nutritional problems and steps they could take without any financial assistance to improve the general health and sanitary conditions in the villages.

The Administrative Officers will arrange a health exhibition at the district level. The folder giving a 'brief' of the activities to be taken up during this Health Fortnight will be issued shortly as was done during the last Health Fortnight.

Arrangements for providing magic lanterns and cinema projector will be made by the office of the Development Commissioner. Magic lanterns and cinema projectors available in the Community Development and the National Extension Service Blocks will be utilised to the maximum extent possible for exhibiting films on health problems. Films for this purpose will be arranged from the Medical Department, Films Division of Govt. of India, and five years Plan Field Publicity Unit.

In most of the blocks, cinema projectors have not yet been supplied. A programme, of the available projectors in the various C.D. Blocks for exhibiting films in N.E.S. Blocks, for 2-3 days in being drawn up and will be issued by the Development Department.

Some of the important items of the programme need to be covered by the Medical Officers during and after the period of Fortnight particularly the survey and treatment of rickety and under-nourished children and its follow up. It is imperative that the medical officers get adequate transport facilities to enable them to cover these items effectively. The B.D.Os will, therefore, make the block vehicle available to the Medical Officers for the purpose of their tour in villages and ensure that the Medical Officers are not strained and that the programme drawn up by them is not dislocated. It would be advisable to draw up in advance a monthly programme for requirement of vehicle of the Medical Officers and the B.D.Os should then adjust their own programme accordingly.

XVI

RURAL HEALTH PROJECT IN U.P.*

There is a great need to test and standardize existing sanitary conveniences and to work out newer and more effective methods of executing these improvements in the field of public health and although Health Education is the foundation on which the success of all rural health programmes depend nothing much has been done in this field so far. Similarly some other problems which need to be considered are housing, village replanning and certain aspects of training of village level workers and sanitary inspectors. Considering these needs the Planning Research and Action Institute of U.P. Government established a section on " Rural Health " in 1956. The section is concerned maiesnly with the phases of research and action and has begun by collecting data of existing field work. It will then carry out experimentation through pilot projects with an eendeavour to solve these problems and adopt solutions to a practical village level.

The following principles will be used as a guide for planning and implementing the programme of the Rural Health Section :—

(*a*) Projects will be selected according to the local felt needs of the people.

(*b*) Participation of the local people in various projects started by the Section will be essential and the field work will be executed entirely by local project officials and villagers with technical assistance and guidance from the team members of Rural Health Section of the Institute.

(*c*) Cooperation at all levels with official and other agencies will be stressed in order to utilise all ways of reaching the total population and to prevent unnecessary duplication of effort and expense.

(*d*) Experiments and demonstrations will be undertaken under controlled conditions in the pilot projects beginning on a small-scale and then expanding to broader activities when success has been achieved.

(*e*) Pilot projects will be financed according to the existing procedure laid out in the Community Projects and Intensive Development Blocks for securing people's contributions and allowing Government subsidy in respect of various items of sanitary constructions.

(*f*) The team approach will be utilised in planning and carrying out the health projects drawn out by the section. The services of women workers will also be utilised in certain fields of work.

(*g*) Surveys and evaluation of each work phase will be conducted to assess the results achieved in respect of the projects launched by the section.

Environmental Sanitation and Water Supply

The environmental sanitation and water-supply programme has been divided into three stages :

(1) workshop testing and experimentation ;

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*Extract from Publication No. 121 of the Planning Research and Action Institute, Planning Department, Lucknow, Uttar Pradesh.

(2) field testing and action ;

(3) evaluation.

Workshop Testing and Experimentation

At the Institute headquarters a sanitation workshop equipped with adequate facilities and personnel to design and construct various simple types of sanitary constructions has been set up. From field observations and discussions held with project personnel of various blocks in the State it has been decided that the following urgent items of work will be taken up :

(*a*) to test, improve and standardize the design of squatting plates, bowls, septic tanks for various types of rural latrines. The defects in the existing types along with the specific improvements proposed to be introduced have also been mentioned under each item;

(*b*) to improve the design of an economical boring auger for digging soakpits and box-hole latrines ;

(*c*) to devise durable and economical types of straight and bend pipes for use with soakpits, house drains and septic tanks and other types of latrines;

(*d*) to fabricate a suitable type of cover and grit catcher for soakpits ;

(*e*) to experiment with more durable and economical types of pipes and channels for underground village drains with or without lane pavement ;

(*f*) to test the existing designs of smokeless chulhas and evolve an efficient working type ;

(*g*) to collect various designs of hand pumps available in the market and determine a suitable type where installation and maintenance costs may be minimum ;

(*h*) to design simple but suitable types of ventilators for village houses.

Field Testing and Action

After several months operation of the workshop the models developed will be experimentally field tested in two districts of the State viz. Lucknow and Etawah. The various devices will be tried out in a few selected villages and extension training centres under the closest supervision. The sanitary inspectors will make observations and record the reactions and opinion of the users. This data can point out necessary adjustments if any, or improvements which can be made in the workshop. As a result of this kind of experimental field testing the items found working satisfactorily will be selected for an action programme beginning in four selected villages of one region of the State. This action programme will try out these sanitary devices on a larger scale to ascertain as to whether they are suitable for general adoption in that region. An attempt will be made to saturate the survey villages with an many of these items as is possible. The linked health programme will prepare a background for the same.

Housing and Village Replanning

This project has been started on a very small scale in the initial stage and three villages have been selected in the Etawah District where the villagers themselves have taken up the lead in moulding bricks with their own labour. Subsidy has been given to them in the form of coal dust and technical assistance in surveying, replanning their village and rebuilding the houses will be extended in order to build a healthy village around people's own needs. Efforts to collect all existing literature and other relevant information on the subject from the Central Ministry of Housing & Public Works Department, Research Labora-

tories, Village Replanning Dept. have been made. These ideas regarding housing improvement will be tried out in these three selected villages to see how they can apply under local conditions of this State. The first stage of field work will be to conduct a housing survey of each village designed to obtain information about the existing housing situation, what size, and type of houses people want and what resources they have for building new houses. After this an engineering survey will be made, draw out new lay-outs and to finalise these with the consent of the villagers. One specific programme that has been included in this project is to plan and encourage construction of community cattle sheds. This item ranks high and will be incorporated into village replanning health education.

A programme of health education activities is to be introduced concurrently with the environmental sanitation programme in four villages of Lucknow and Etawah districts. These activities will be carried out through different organised groups to see what effects various agencies have upon the acceptance of the sanitation programme. The organised groups in the village to be utilised in this programme are the Goan Sabha or Panchayats (men's groups), women's groups and youth clubs and schools. At present there is no field worker who has the necessary training or specific assignment to carry on health education work in Intensive Development or NES Blocks. One of the existing project personnel will be entrusted with health education work in addition to his regular assignment. Pilot studies are proposed to be undertaken to determine whether the Sanitary Inspector or S.E.O. or both will be most suited to carry on the health education work in villages. Depending on the results of the pilot studies a short reorientation course in health education methods for projects sanitary inspector, S.E.O. or for both will be conducted at Bakshi-Ka Talab Training Centre, district Lucknow on collaboration with the State Health Department, A.D.O. (Social Education) and Deputy Development Commissioner (Training). The section plants to first collect information about all health education materials which are available from the State Health Department, and other agencies in India and publish a circular or handbook listing this data, production of new audio-visual aids for health teaching such as posters, flash cards, flannel groups and filmstrips will be taken up as soon as the programme gets under way and local needs call for specific items of this nature.

Training

The following two items have been included under this programme:—

(*a*) Inservice training for project sanitary inspectors. It is proposed to start refresher courses in basic sanitary engineering for the sanitary inspectors to give them the requisite background to undertake sanitary constructions, particularly septic tanks and other types of latrines, pavement of lanes etc. It is also proposed to collect material for the preparation of a "field manual on sanitary constructions" to serve as a handy reference book for the sanitary inspectors in the field.

(*b*) Evaluation of public health courses conducted in village level workers training centres:— It is proposed to conduct an evaluation in five Extension-cum-Training Centres, selected in consultation with the Deputy Development Commissioner (Training) to find out if the public health course (particularly the practicals) is being administered satisfactorily and by competent teachers. After certain basic informations are collected for the five centres at Gorakhpur, Bulandshaher, Agra, Jhansi and Almora the team members will visit them actually to see how the training programme in public health is conducted and also to have discussions with the officer-in-charge and staff concerned in public health training.

XVII

COOPERATIVE DRUG DEVELOPMENT SCHEME RANIKHET—U.P.

Hill districts of Almora, Nainital, Garhwal, Tehri, and Dehradun are poverty sticken on account of meagre agricultural production, bad soil and geographical conditions, but they are very rich in medicinal herbs. On account of the great dearth of genuine and potent drugs, medicines are often sold in the market in adulterated form. In the circumstances, cooperative approach was the only hope and a scheme of collecting herbs on Cooperative lines has been started in hill districts with headquarters at Ranikhet. The Pradeshik Co-operative Federation, Lucknow, is financing the scheme entirely without getting any subsidy or financial help from any other source.

The Drug Development Scheme has three phases:

1. Collection of herbs on scientific lines.
2. Cultivation of drugs.
3. Manufacture and sale of medicines.

The collection work is done through Cooperative Societies which are located near the sites where the various drugs are found in wild state, and is being supervised by a Group I Officer. The contract of the forest is obtained from Government by paying Royalty. The members pass on their collections to the societies and receive wages for their labour. The societies hand over the stocks to the Pradeshik Cooperative Federation and obtain collection charges. At Pradeshik Cooperative Federation Collecting Centres these herbs are cleaned, sorted, properly graded and then supplied to consumers. In this way, the scheme not only helps in the supply of genuine herbs at cheap rates but also provides employment to the poor people of these districts. During the year 1956-57, collection and sale of herbs amounted to Rs. 1,69,653/- and Rs. 1,10,898/- respectively.

Collection of herbs requires some skill. In the first instance, it is difficult to recognise them and then picking has to be done with care so that they may not be permanently damaged. For the purpose, training is imparted to persons engaged on making collections. A Cooperative Drugs Factory has been established at Ranikhet with a well-equipped Pharmaceutical Laboratory under the charge of a qualified Pharmaceutical Expert—a Government Officer. This Factory produces Ayurvedic medicines from its own collection of herbs and the quality of these medicines is therefore beyond doubt. The main attention has so far been paid to medicine chests which contain 23 medicines and have been supplied to Panchayat Raj, Social Welfare and Planning Departments. Now the production programme has been extended and 78 more medicines are being manufactured. The total sales of medicines during the year 1956-57 amounted to Rs. 1,92,365/- and the total produce of the year was worth Rs. 2,76,313/-.

The programme of cultivating important and rarely available herbs at Ranikhet has also been undertaken so that their stock may be developed.

This scheme was so far being worked in Nainital and Almora, but has now been extended to Tehri, Garhwal and Dehra Dun also. The Scheme was started in the year 1951 and the production of medicines was taken up with effect from 1955. This is an ambitious scheme and there is ample scope for the work to be done.

The Cooperative Drugs Factory has already been able to place in the market one dose of medicine at less than a pice for each common ailment. It proposes to extend its manufacturing programme to another 100 items that are commonly used by the Ayurvedic practitioners. The idea is to cater for the dispensary needs of the Vaidyas of all descriptions so that the Vaidyas are relieved of the great anxiety of preparing their medicines. Cheap packing of reputed medicines will also be introduced in the near future. Plans for the manufacture of some patent and proprietory medicines are also under consideration of the Factory.

XVIII

PHASED PROGRAMME OF EDUCATION IN THE MADRAS STATE

Courses of Studies at Present in Force

Elementary Education. The statutory definition of Elementary Education in this State is as follows :—

" Elementary Education means education upto and including Standard V of an elementary school or upto and including class 5 of a secondary school ; and, for purposes other than compulsion also includes education in Standards VI,VII and VIII of an elementary School."

The total duration of elementary education is eight years. It is divided into Primary or Lower Elementary Stage and the Higher Elementary Stage. The lower elementary course of studies covers five years and the higher elementary course covers three years. The rules prescribe a minimum of 220 school days each year (which include, however, eleven days when the teachers may be on other duty). They also prescribe a 5-hour day. It will thus be seen that the minimum duration of Lower Elementary Course is 5,225 hours. This total is divided into two almost equal halves between Language, Elementary Mathematics, History and Geography, Civics and Hygiene on the one hand ; Music, Handicrafts, Nature Study and Gardening, Physical Training and Moral Instruction on the other. The Higher Elementary Course of studies covers three years or a minimum of 3,135 hours in all. It differs from the Lower Elementary Course, in the following respects :—

(*i*) Academic Education in the Lower Elementary Course is just about sufficient to bring about permanent literacy. The Higher Elementary Course raises the level of both literary attainments and general knowledge to what is regarded as a desirable common minimum for all citizens.

(*ii*) There is a larger allocation of curricular time in the Higher Elementary Course for academic education. Whereas the allocation is one half of the total in the Lower Elementary Course, it is three-fifths in the Higher Elementary Course.

(*iii*) Whereas handicrafts are almost purely recreational in the Lower Elementary Course they become 'Pre-vocational work' in the Higher Elementary Course.

Admission is made to the first year of elementary education upon completion of five years.

Basic Education. There are two different types among Basic Schools as among elementary Schools ; the Junior Basic Schools corresponding to Primary Schools and the Senior Basic School corresponding to Higher Elementary Schools. The course of study in Basic Education is continuous and planned as a single eight-year course. The division of this course into two successive stages of five years and three years is not, therefore, a necessary feature of the Scheme.

Secondary Education. Secondary Education is not strictly defined. It is intended to cover all the courses of studies provided in Secondary Schools beyond the primary stage as statutorily defined ; that is to say, after the first five years of schooling. Secondary Schools are of two types, viz. High Schools and Middle Schools. High Schools make provision normally for six years after primary schools, in what

are called, Forms I to VI. Some high schools may also contain provision for classes 1 to 5 where they provide the Lower Elementary course of studies. Middle Schools are secondary schools in which provision for education, beyond the primary stage, is limited to forms I to III.

There is a prescribed course of studies in Forms I to III of all Secondary Schools. It is parallel to the Higher Elementary Course in as much as it covers the same period, viz. the sixth, seventh and eighth years of school-education. Yet it is explicitly excluded from the scope of Elementary Education by the satutory definition referred to above.

The last three years in High Schools (forms IV to VI) are distinguished from all earlier years in other schools by a special circumstance. Whereas, in earlier stages, there is only one course of study in the same year of the same school, there can be more than one course or study in the same year of the same school so far as Forms IV to VI are concerned. All the parallel courses are, however, interrelated and regulated by a single course for the award of the " Secondary School Leaving Certificates." These courses are referred to as the S.S.L.C. courses. Admission to these courses are made mainly from among pupils who have passed the III Form in Secondary Schools. Admission is also made of other pupils who (having completed the Higher Elementary Course with English as an optional subject) appeared for the Elementary School Leaving Certificate Examination and have been declared eligible for admission to S.S.L.C. courses.

The most important among the S.S.L.C. courses is known as the Academic Course. The alternatives to the Academic Course are collectively referred to as the 'Bifurcated courses' or the 'Diversified courses'. The idea underlying these courses is that a hard core of essential academic subjects should be retained as a common factor and pupils who take diversified courses should receive the same instruction in these subjects as pupils who take the academic course. The rest of the curricular time should be devoted to what may be called " Prevocational preparation " of an essentially practical nature. The bifurcated courses introduced in this State are (*i*) the Secretarial Course. (*ii*) the Pre-Technological Courses, viz., (*a*) the Engineering Course, (*b*) the Agricultural Course, (*c*) Textile Technology Course (*iii*) The Teaching Practice Course and (*iv*) The Aesthetic and Domestic Course intended for girls.

Changes Proposed

It is proposed to reorganise the course of studies in this State. The Committee of the State Legislature constituted to assist the Minister for Education in finalising the Education Scheme for the State has recommended a Ten-Year Programme of reorganisation of the courses of studies in schools and a Ten-Year programme of reorganisation of Primary Education. The main features of these programmes are the following :

The present S.S.L.C. Course of 3 years should be reorganised as 4 year courses of secondary education on the lines recommended by the Secondary Education Commission. The Elementary Education course should be compressed from 8 years to 7 years without any loss of content. It should be made available as the common course in all schools during the first seven years of the 11 year schooling system. The differences between the Junior Secondary (Middle School) course and the Higher Elementary course should be removed and there should be one course only. The existing differences between Basic Education and non-Basic Education should also be removed, within the next ten years. The objective of compulsory education as required by Article 45 of the Constitution of India should be limited to the first five years of schooling and the time-limit should be extended to 10 years. Five-Year schooling should be made compulsory in every village and every town of the State by 1965-66. The scheme should be

introduced in selected Development Blocks where the National Extension Service Scheme has already been in force for not less than one year. The National Extension Scheme is planned to be introduced in all villages of the State by the end of the Second Five Year Plan period. This scheme will be introduced in the wake of the National Extension Service Scheme. It will take five years for this scheme to take full effect. Thus, a phased programme of compulsory enrolment will be carried out throughout the State and completed before the end of the Third Five Year Plan period. The towns in which compulsion has not been already introduced will be taken up, separately, but concurrently and compulsory education extended to them also. While effecting the selection of new blocks special regard will be had to existing educational backwardness. Those areas in which the enrolment rates are at present very low will be selected earlier than others. While active stimulation of enrolment under the scheme may be limited to the selected blocks, the normal demand for increased admissions will be met in other blocks.

XIX

MANGAL DAL

PILOT EXPERIMENT IN RURAL YOUTH ORGANISATION

Conducted By Planning Research & Action Institute, U.P.

Purpose and Scope

The purpose of Rural Youth Organisation is to develop people into better cultivators and cultivators into better people by making available to farm youth the best knowledge and skills; and to build the attitudes, values and habits needed to produce intelligent, well-informed, useful citizens for the villages, for the State, for India and for the world. A guiding principle is to "learn by doing" and, so far as possible, "to earn while learning".

It was decided, before embarking upon a programme for the establishment of youth clubs on a large scale, to conduct pilot experiments in selected areas. The aim of these pilot experiments was to find out the best approach and methods and to determine the most fruitful programmes by trying them in small areas under close observation and guidance of specialists with a view to later step-by-step expansion of the work in other areas on tried and proved lines.

The pilot projects begun by the Planning Research and Action Institute in 1954 at Ballia and Etawah served as the experimental laboratories to discover the mistakes and difficulties to avoid and to find the best programmes, organisational pattern, techniques and methods. Ideas borrowed from other countries or Indian States or originated in the Institute itself were tried to determine their application to and practicability for the requirements of U.P. The scope of the pilot projects in youth work was necessarily limited by our limited resources and by the need for thoroughness and concentration as essential to a planned approach.

Objectives

The programme envisioned in the pilot projects is a specialised educational enterprise for rural youth. As such, it shares in the objectives common to all educational programmes aiming at physical, mental and moral development. It also has distinctive objectives as enumerated below :—

(1) To help rural boys and girls develop desirable values, ideals and standards for (*a*) farming, (*b*) family life, (*c*) community life, (*d*) citizenship and (*e*) leadership ; and a sense of responsibility for their attainment as an ambition for a fuller and richer life.

(2) To give rural boys and girls technical instruction in (*a*) farming, (*b*) home-making, and (*c*) community leadership through training in practical and profitable, individual and group projects, such as vegetable and crop-growing, gardening, tree-planting and animal rearing, on improved lines.

(3) To train the youth in co-operative action as a means of increasing personal accomplishments and solving community problems by practising co-operation with others in community efforts for the common good in joint projects, such as, Shramdan, community tree plantation, operation of co-operative societies and other community organizations, and group agricultural projects, and by these means to learn the duties and responsibilities of citizenship in a new democracy.

(4) To develop such leadership qualities as self-reliance and devotion to duty by exercising group responsibilities through active club membership, service on club committees, fairs, camps, competitions, tours, judging contests and holding club offices.

(5) To develop scientific attitudes towards the problems of the farm, the home and the community; to arouse a desire to learn to acquire an intelligent understanding and to teach them the value of research.

Technique and Methods of the Pilot Experiment

Concentration, thoroughness and follow-up are the essence of the pilot project approach. Accordingly, the work was started in a small area with close concentration under specialists' guidance and supervision. The significant results, successes as well as failure, were closely analysed and further expansion of the programme has been prepared on the basis of these analyses. It is a " Research-Action " project with a scientific and practical approach with enough coverage in a number of areas to make sure development is not artificial. In brief, the purpose in line with Planning Research and Action Institute objectives and methods is to test the development of youth work in several districts and then to turn over the proved results to the appropriate operating organisations for incorporation into the normal development programme.

Selection of Districts and Villages

To begin with, the work was started in Etawah and Ballia Districts. In Etawah District two villages, Sherpur and Sonvarsa, situated near the Project Headquarters, were selected. The work was organised by the junior Associate to the Specialist on Extension, who lived in one of the two villages and worked closely as Youth Leader with the boys in the selection, planning and implementation of the individual or group projects and participation in the community life. Seminars were held with boys in either the Junior High School, Sonvarsa, Janata Vidyalaya Intermediate College, Bakewar, or any other suitable place in the village so that they came fully to understand and appreciate the details of the projects and the programme they selected to carry out. The V.L.Ws. of both villages, Extension teacher, Social Education teacher and at least one volunteer village leader were associated with the work as observers. They did not work with the boys like the specialist workers but observed the work with a view to organizing similar work in other villages after the initial stage of experimentation. During the first six months, the specialist worker concentrated solely on these selected villages. Later on, he was assigned to 3 additional villages to supervise work which had started there under influence of the original two villages. In addition, he served also as consultant on youth work to the V.L.W. in charge of five selected villages more distant from his headquarters.

Work in Ballia District

Simultaneously, the work was started in Ballia District on a somewhat different footing. Some useful work had been done in this district by the social education and other staff of the Community Project. This work was continued under specialist guidance, help and supervision from the Institute. In order to determine how far this work can be carried out by the existing staff such as, the V.L.W., field teacher, extension teacher, social education teacher (adult teacher), and volunteer worker, no specialised youth worker was provided. A separate organisation for youth work from top to bottom is neither desirable nor feasible on account of the waste due to duplication, over-lapping and lack of co-ordination and for want of adequate resources. The existing

institutions, agencies and resources should be utilised and should be supplemented only to the minimum necessary extent within the means of our country. The most that the State can provide is one youth worker for each two blocks. At the village level, we have to depend on volunteer workers, particularly the part-time social education teacher, led and assisted by the normal development set-up such as the village level workers, field teachers and extension teachers in Community and N.E.S. projects.

Further Expansion

Special care was taken to keep expansion fully backed by trained personnel, literature and other essential supplies and to prevent too rapid expansion of the youth organizations to villages where proper guidance is not available or where thorough ground work has not been done. Interest in youth activities should, by all means, be encouraged but formalization of the work in villages should be carried out only when an adequate cadre of staff members trained in youth work has been developed.

As a first step in that direction, the Institute recommended that intensive training in youth work be made a part of the curriculum of all training centres for development personnel. It was recommended that at least one-sixth, including time for field work, of each complete personnel training period should be devoted to the subject. All this has been started and will be continued until enough people have been trained to fill all required positions. The pilot project clubs now operating under the Institute will continue to serve as demonstration and sight-seeing areas in connection with this training course. Upon returning to the centres after completion of the course, each trainee was equipped with a syllabus to integrate into the curriculum of his centre. This first step in expansion beyond the original pilot projects in youth work was intended to test the general applicability of lessons learnt and experience gained under less concentrated and controlled conditions. It was intended, also, as an interim phase preliminary to turning the work to the appropriate operating organization or co-ordinated organizations. A second more drastic expansion under complete control of the appropriate operational organization is then recommended for certain areas where personnel has been trained in this work.

Techniques

The basic technique of the Youth Programme is to learn by doing and to earn while learning. The members of the club undertake various individual or group projects according to their aptitude and opportunity with the constant technical guidance and help of Extension workers. They conduct farm, home and the community enterprises with an intelligent understanding of the various programmes, possibilities, problems and the possible means of overcoming them. Thus, they will develop profitable and desirable habits, increase their income and standard of living, create better homes and home environment through more healthful and hygienic living, and use leisure better through cultural, social and recreational activities, including games and sports, camps, competitions, tours and fairs.

Rural youth work is an integral part of social education and agricultural extension, regarded not merely as an important side-line but as a main plank of the programme.

The youth clubs, hereafter also referred to as " Mangal Dals ", are voluntarily joined and democratically organised groups of young people working under the guidance of local volunteer leaders, trained, assisted and guided by the appropriate Community Project and other extension staff, such as, village

level workers, field teachers, extension teachers of the junior High Schools, other selected teachers, P.R.D. workers, etc.

Club members elect their own officers, plan and conduct their own programmes, hold regular meetings, and take part in community improvement. The adult leaders, whether official advisers named above or volunteer leaders, serve only as friendly consultants to guide the individual members and the club.

The clubs are concerned with practical economic activities designed to improve practices in agriculture and rural development as well as cultural and recreational activities to raise the educational level and community spirit of the villages.

Any youth, literate or non-literate, between the age of 12 and 20 years, who, with parental consent, agreed to "learn to do by doing" in some worthwhile activity in farming, home improvement, or community development may become a club member. The purpose and activities of the club are strictly on-sectarian and non-political.

XX

A STUDY ON THE INTEGRATION OF FUNCTIONS AT THE VILLAGE LEVEL IN UTTAR PRADESH

The Multi-purpose Village Level Worker (Gram Sewak) stands at the base of the whole development set-up. In the introduction of agricultural techniques, promotion of public health measures, animal husbandry, cooperatives, social education and the organisation of community activities for common welfare he is our extension worker *par excellence*. He also represents the new arm of the administration—the welfare arm. Through him and through the Community Projects programme of which he is our principal exponent in the field, the idea of the Welfare State takes a concrete form in the minds of the rural people.

The popularity of the Multi-Purpose V.L.W. System springs from the fact that it is regarded as the most economical, effective and convenient set-up appropriate to the villagers' simple needs and conditions and free from the handicaps of the Single-Purpose Worker System, viz., (a) unmanageable area of operation, (b) inadequate contact with the people, (c) seasonal pressure of work alternating with comparative idleness and (d) lack of team approach and departmental coordination. While the success of this system has to be judged by the extent to which the above difficulties have been overcome, it is equally necessary to safeguard against an excessive work-load and an inordinate increase in the multiplicity of his functions. With the Gram Sewak firmly established in the village, the demands on his time and energy have been increasing. On the other hand, the villager approaches him for the solution of his difficulties to an increasing extent and on the other the Departments through their district and Group Level Specialists press for the realisation of higher and higher targets in each of the fields of project work and for an increasing volume of information and reports from the field.

Alongside the Gram Sewak, a number of departmental Single-Purpose functionaries continue to work at the village level with overlapping jurisdictions. They are the Panchayat Secretary, Co-operative Supervisor, Assistant Agricultural Inspector, Cane Supervisor, Vaccinator, Veterinary Stockman, P.R.D. Zone Worker and Lekhpal. The question has been asked whether the duties of these functionaries could not conveniently be combined with those of the Gram Sewak. Already in the Pilot Project, Etawah, the duties of all the functionaries except those of the Lekhpal have been combined in a single Multi-purpose Gram Sewak operating in a relatively smaller area. The Planning Research and Action Institute, therefore, took up this study to evaluate the role, the work-load, and the relationships of the Gram Sewak with a view to recommending the most appropriate combination of functions and area of operation in the context of the existing situation in development projects in Uttar Pradesh.

Objectives of the Study

The objectives of the study of the "Evaluation of the Role of a Gram Sewak" were defined by the Project Committee to be as follows :—

"(*a*) The main objectives of this enquiry are:

(1) to evaluate the role of the Gram Sewak as it is evolving in the context of the present changing U.P. development pattern;

(2) to analyse the Gram Sewak's present work-load and distribution;

(3) to study the total context of the Gram Sewak's relationships with the various development departments, with the project officials, with other Gram Sewaks and the single-purpose workers at the village level and with the villagers.

(b) The secondary objectives are:

(1) to make recommendations relative to his role, work-load, inter personal and group relationships, and such other factors as the data may permit;

(2) to delineate a larger study on the basis of hypotheses emerging from this and other Gram Sewak studies now in process."

Method of Study:

For the purpose of this study, the districts of Garhwal, Deoria, Lucknow, Etawah, Jhansi and Meerut were selected as typical districts from the various zones of the State, besides Etawah which was included in the study on account of the pilot nature of the most highly developed concept of multi-purposeness of the Gram Sewaks serving in that district. All the Community Projects and N.E.S. Blocks that had been working for more than a year in these districts were included in this study. They are as follows:

Sl. No.	*District*	*Zone*	*Project/Block*	*CP/NES*
(1)	Garhwal	Hills (North)	a. Tharali	(C.P.)
			b. Dhangu	(NES)
(2)	Deoria	East	a. Salempur	(C.P.)
			b. Kasia	(C.P.)
			c. Captainganj	(NES)
(3)	Lucknow	Central	a. Goshainganj	(NES)
			b. Sarojininagar	(NES)
			c. Bakshi-ka-talab	(T.E.P. cum-NES).
(4)	Etawah	Special	a. Mahewa	(P.P.)
			b. Bhagyanagar	(P.P.)
			c. Lakhna	(P.P.)
(5)	Jhansi	Bundelkhand (South)	a. Moth	(C.P.)
			b. Gursarai	(C.P.)
			c. Mauranipur	(C.P.)
(6)	Meerut	West	a. Loni	(NES)

Keeping the objectives in view, four questionnaires were drawn, three to be administered to:

(a) all the multi-purpose Gram Sewaks,
(b) all the single-purpose functionaries, and
(c) all the group-level and district-level officers

} working in the projects/blocks referred to in para above.

and the fourth, i.e.,

(d) villagers' questionnaire to be administered to 10 per cent randomly selected heads of families as well as to all non-official village functionaries in 5 per cent randomly selected villages in each of the projects/blocks mentioned above.

The objectives of the study and the implications of the questions were explained at the Project/Block level staff meetings to the functionaries of categories (a) and (b) above and the questionnaires were got filled up by the various officials

at these meetings under the supervision of the Institute staff, while detailed written instructions were issued to the officers of category (*c*) regarding each question and the questionnaires duly filled in were received from them by mail subsequently. The villagers' questionnaire was administered by the Institute staff who interviewed the randomly selected heads of families and the non-official functionaries formally, and filled up the questionnaires themselves.

In the course of the visit to Project/Block headquarters it was found that in the Project areas of Salempur and Kasia in Deoria district, the Panchayat Secretaries were working as full-fledged Gram Sewaks in limited areas. For instance, if there were five Gaon Sabhas under a Panchayat Secretary, three of them were entrusted to the Gram Sewaks for all work and the remaining two were looked after by the Panchayat Secretary together with the duties connected with the Panchayati Adalat. Thus both the Panchayat Secretary and the Gram Sewak were working as multi-purpose functionaries with usual difference in pay status. It was also found that N.E.S. Blocks of Loni (Meerut) and Dhangu (Garhwal), where the full quota of the Gram Sewaks had not been posted and the area was too vast, particularly in Dhangu (Garhwal), had been covered by the available number of the Gram Sewaks. In the areas where no Gram Sewaks had been posted, the Panchayat Secretaries were for the time being carrying out, as far as they could, the various functions of the Gram Sewaks as well in addition to their own duties. In the case of Salempur and Kasia where this system has been working for a pretty long time, therefore, the Panchayat Secretaries were allowed to fill up the 'Gram Sewak' questionnaire.

Apart from the four questionnaires, certain record proformae were also prescribed for collecting supplementary data from various sources. These were:

(*a*) Field Investigator's statement regarding sampling particulars about each village covered by the villagers' questionnaire and the time taken in conducting the interviews ;

(*b*) Particulars of the officials—officers working in each Project/Block on village, group and district levels ;

(*c*) Circle jurisdiction of all the Gram Sewaks and the Single-Purpose functionaries functioning at the village level in each Project/Block, in terms of number of villages and population ;

(*d*) Gram Sewak-wise break-up of the targets and achievements in each Project/Block for the year, 1954-55 ;

(*e*) Maps of the Projects/Blocks showing circle jurisdictions of the Gram Sewaks, the Panchayat Secretaries and the Lekhpals ; and

(*f*) Personal diaries of all the Gram Sewaks and/or Panchayat Secretaries working as Gram Sewaks, on a standardised pattern for one month only from the date of group interview.

The D.P.O.s', Dy. P.E.O.s' and B.D.O.s' were also requested to send their detailed comments about the various aspects of the study on the basis of their personal experience and all field investigators had been instructed to hold group discussions in as many villages under study as they possibly could in order to bring out the general village background and the people's general attitude towards the various aspects of the community development programme. Similar group discussions were also held with the Gram Sewaks and the single-purpose functionaries after they had filled up their questionnaires and fullest possible scope was allowed to them to express their difficulties and problems in their day to day work and significant points recorded by the Institute staff.

The response from the Projects/Blocks in furnishing the requisite information in the prescribed forms was generally sastisfactory except in respect of the G.L.W./D.L.W. questionnaire which was filled up by very few District Level Officers and the maintenance of the daily diaries by the Gram Sewaks which was not done by all the Blocks or was done incorrectly by some of those who did it. The entire field work was completed within ten weeks from May 25, 1955 to August 4, 1955. The total figures for each questionnaire for all the Projects/Blocks are given below:

(*a*) Gram Sewaks	257
(*b*) Single-purpose functionaries	512
(*c*) Group Level Workers	96
(*d*) Villagers (Family Heads)	788
(*e*) Villagers (Non-official functionaries)	117
Total	1770

The Principal conclusions of the Study are summarised below :—

1. *Desirability of Multi-purposeness* :—Leaving aside a few exceptional cases, the villagers' knowledge about the whereabouts of the Single-Purpose functionaries (except the Panchayat Secretary and the Lekhpal) is poor under all strata. While the Panchayat Secretary and the Lekhpal are more popular than the remaining 6 categories of Single-Purpose functionaries under all strata, the Gram Sewaks are, under normal conditions, much more popular than these most popular ones among the Single-Purpose functionaries. The fact has, however, to be noted that in a number of Projects/Blocks the number of the Gram Sewaks is smaller than the number of Panchayat Secretaries and/or the Lekhpals, meaning thereby that the area of operation of the Multi-Purpose Worker is larger than that of the Single-Purpose Worker, which contradicts the very fundamental principle of the Multi-Purpose System.

2. *Frequency of visits* :—The Gram Sewak is not only the most popular of all the Government functionaries at the village level under normal conditions, but the frequency of his visits to the villages too is much higher which assures that his contacts with the villagers are likely to be much more adequate than any other functionary. The fact that the Gram Sewaks' popularity and greater frequency of visits are comparatively more pronounced in the CP areas than in NES areas and in CP/PP areas than in N E.S. areas is indicative of the fact that the smaller the area of operation and the greater the multi-purposeness and intensiveness of the programme, the greater are the chances of greater contacts with the people.

3. *Development officials heard and contacted* :—Except the Panchayat Secretary in Captainganj and BKT and the Lekhpal in the latter Block, none of the Single-Purpose functionaries is normally considered to be a development official and contacted as such by the villagers. The Gram Sewak is considered to be the development official *par excellence* by the villagers.

4. *Validity of Villager's Verdict* :—The Gram Sewak does not only surpass all the single-purpose functionaries in respect of the knowledge of the villagers regarding his whereabouts and the frequency of his visits to the villages, but he also stands first almost without a second in respect of being considered to be the development worker at the village level, and is the most highly contacted Government functionary at the village level.

5. *People met by Gram Sewak* :—The Gram Sewak's contacts with the villagers are not only broad-based and constant, but they are also purposive, and their utility has been well-recognised by the villagers.

6. *Multi-purpose coverage of Gram Sewak's contacts* :—The Gram Sewak is helping the villagers on a multi-purpose plane with varying degrees of coverage from stratum to stratum and programme to programme. This is natural too, since the intensity of contacts for various purposes and under different strata is a function of multiple variables.

7. *Opinions regarding Desirability of Multi-purposeness* :—On the whole, the villagers as well as the non-official village functionaries either do not know the multi-purpose worker system as distinguished from the single-purpose worker system or if they know that, they are overwhelmingly in favour of the former unless in a particular area the multipurpose worker system has not been fully availed of by the people, irrespective of the fact whether it was due to lack of demand for the same on the side of the villagers or to lack of multi-purpose help from the Gram Sewak in spite of demand.

8. *Deeper analysis necessary* :—Generally speaking, the stratum-wise analysis also holds good for constituent Projects/Blocks in each stratum, with some variations here and there. On the whole, the multi-purpose system has been favoured more overwhelmingly by those who have actually availed of the effective multi-purpose service than those who have not availed of the same, and the percentages of those availing of the effective multi-purpose service and not knowing the system are much less than those not availing of the same. Consequently, the conclusion drawn earlier regarding the verdict of the villagers about the desirability of multi-purposeness stands and it can be said further that the more effective the multi-purpose service actually rendered, the greater are the chances of the recipients favouring the system and appreciating its implications. It is, therefore, concluded that not only does the multi-purpose system find favour with the villagers who know, but it has also a great potential possibility of being favoured by the villagers still more as it is availed of more and more effectively. The fact that quite a sizeable percentage of the villagers has received either no service at all or has received it only in one programme, does not however mean that multi-purpose service has necessarily been inadequate in their case, since the extent or service rendered by the Gram Sewak is a function of quite a number of variables, all of which have to be examined before any conclusion can be drawn.

9. *Villagers' Reasons for & against Multi-purpose System* :—Even in its present stage of enforcement, the multi-purpose system, as it varies from Project/Block to Project/Block and as far as it could be understood by the respondents in the different areas within their own set-up of circumstances, including the enlightenment provided by the questionnaires itself and by the method of administration of the same, has been highly favoured by the villagers and has further possibilities of still greater approbation from them.

10. *Single-Purpose Workers' Opinions* :—On the whole, the reasons advanced by the various functionaries are not at all insurmountable in order to rope them in the multi-purpose setup and in the long run, even the large number of 31% of the Lekhpals who have indicated their unwillingness to become multi-purpose Gram Sewaks can be attracted to the favourable camp.

11. *Opinions Regarding Extent of Multi-Purposeness* :—All the single-purpose functionaries at the village level, the Group Level Workers and the Gram Sewaks were required to give their opinions about the functionaries whose duties could be conveniently combined into those of a single multi-purpose worker.

Among the three single-purpose functionaries a large majority of whom did not like to become multi-purpose Gram Sewak, the Assistant Agricultural Inspector favours the functions of the Cane Supervisor and the Vaccinator only to be combined with his own, the Stockman would take up the additional functions of the Vaccinator and the P.R.D. Zone Worker with lesser willingness

for those of the Assistant Agricultural Inspector and the Cane Supervisor, and none of the two would like to assume the more onerous duties of the Panchayat Secretary, the Co-operative Supervisor and the Lekhpal. The P.R.D. Zone Workers, on the other hand, are overwhelmingly in favour of combining the functions of all the functionaries into one multi-purpose worker.

The remaining 5 single-purpose functionaries have favoured the combination of the functions of all except those of:

(*a*) Cane Supervisor by *Panchayat Secretary*;

(*b*) Lekhpal by the *Cooperative Supervisor*;

(*c*) All functionaries except those of the Cooperative Supervisor and his own by the *Cane Supervisor*;

(*d*) Lekhpal by the *Vaccinators*; and

(*e*) the Cane Supervisor, the Stockman and the P.R.D. Zone Worker (only marginally though) by the *Lekhpals*.

On the whole, the functionary whose duties are least desired to be combined with those of the Gram Sewak is the Lekhpal.

G.L.W.s' opinions—The responses of the G.L.Ws. were examined with reference to individual programmes and the G.L.Ws. concerned with each programme were grouped together. The trend of opinions of each category of G.L.Ws. was more or less similar, meaning thereby that the views of the G.L.Ws. had been sufficiently crystalised regarding the problem under study. In the case of the G.L.Ws. the functions of the Panchayat Secretaries were split up into his development work, records and returns, and tax realisation, while those of the Co-operative Supervisor were clearly defined to be those connected with primary societies. While the G.L.Ws. have favoured the combination of the functions of all the functionaries except those of the Lekhpal to which they are clearly opposed, they are also much less sure about the records and tax realisation.

Gram Sewaks' opinions—In the case of the Gram Sewaks, apart from the defining of the functions of the Panchayat Secretary and the Cooperative Supervisor as in the case of the G.L.Ws., the functions of the Assistant Agricultural Inspector were also defined to be those of agricultural extension work only, while those of the Cane Supervisor were split up into planning work and cane marketing functions. The opinions of the Gram Sewaks too are sufficiently crystalised under all strata. Detailed analysis shows that the functions of the various functionaries desired to be combined by the Gram Sewaks fall under three categories. *Firstly*, the functions of the Panchayat Secretary in respect of development work, those of the Cooperative Supervisor in respect of primary societies, of the Assistant Agricultural Inspector regarding agricultural extension, Cane Supervisor's work on the planning side, and the functions of the Veterinary Stockman and the Vaccinator are overwhelmingly favoured to be merged together. *Secondly*, the cane marketing functions of the Cane Supervisor have been overwhelmingly favoured by the Gram Sewaks in the areas concerned, particularly in district Deoria which is the principal cane-growing area represented in this study. *Finally*, the functions of the Panchayat Secretary connected with records and returns and tax realisation, those of the P.R.D. Zone Worker and the Lekhpals have scored divided opinions, although the weight of opinions favouring their combination too is quite considerable even at present. Subsequent analysis of the work-load of the multi-purpose Gram Sewak alone will enable us to visualise how far a combination of the various functions is immediately possible and how far ultimately it can be effected through appropriately phased adjustments and re-adjustments.

Work-load of the Gram Sewak

The factors that influence the work-load of the Gram Sewak are : (*a*) Area of operation ; (*b*) Items of work and their seasonal variations ; (*c*) Records and Returns ; (*d*) Hours of work ; and (*e*) Coordination of the multiple functions.

12. *Area of operation* :—There are considerable variations in the areas of operation of the Gram Sewak in the various strata as well as in the constituent Projects/Blocks in each stratum, on account of varying sizes of the villages, the density of population, geographical factors and the allotment of the Gram Sewaks in the C.P. and N.E.S. areas on different footings. Average number of villages per Gram Sewak, average population and average distances from circle head-quarters of the Gram Sewaks to their respective Project/Block headquarters and the correspondingly minimum and maximum figures were analysed.

Hill District—The number of villages assigned to a Gram Sewak and the distances to the Project/Block headquarters are the highest in the hill district, although the average population is not so large. An average of 57 villages per Gram Sewak circle and a maximum distance of 32 miles to the Block headquarters in the N.E.S. Block, Dhangu, clearly mean that the circles are too big to be effectively handled. It is not unusual for a number of Gram Sewaks to spend a week in travelling for the monthly staff meeting at the Block headquarters.

Plain districts—In the plains, while in the C.P. and C.P./P.P. areas the average number of villages varies from 5 to 8 in the former and 3.5 to 7 in the latter with corresponding average populations ranging from 3,000 to 4,500 and 3,000 to 3,500 respectively, in the N.E.S. areas the average number of villages varies from 10 to 17 and the average population about 8,000 to 14,000 per Gram Sewak with Loni having on the maximum side the highest figures of 21 villages and 16,000 population. Analysis shows that the allotment of the Gram Sewaks to different Projects/Blocks certainly lacks a rationale behind it from the point of view of comparative workload.

Since the sizes of the villages in terms of population vary considerably, the population factor is equally important as a measure for the area of Gram Sewak.

13. *Extent of the areas of operation* :—The distances of the farthest villages from the circle headquarters in each Gram Sewak circle were examined. In the plains, 60% to 72% of the Gram Sewaks operate within a maximum radius of 4 miles and as many as 83% to 94% are covered up by the higher category of 0-6 miles. In the hills, only 27% of the Gram Sewaks in the C.P. area and 11% in the N.E.S. area operate within a maximum radius of 0-6 miles, and further 63% and 67% respectively have to operate within a maximum radius of 7-12 miles and the rest have to cover still more rigorous distances. It is also to be remembered that in the plains the Gram Sewaks use bicycles and are able to return home every evening after the day's work throughout the year. In the hills the working season extends over six to eight months only due to seasonal factors, no bicycles can be used and the Gram Sewaks have to travel on foot, marching onward and onward and back again, and they have to spend much greater time in travelling, frequencies of visits are naturally less and journeys more rigorous and tiresome.

14. *Extent of average daily movement* :—In the C.P. areas, in the hills and the C.P. and the C.P./P.P. areas in the plains, generally the Gram Sewaks have to travel to the extent of 0-10 miles daily, the N.E.S. areas in the plains too follow closely, but in the N.E.S. areas in the hills only 33% of the Gram Sewaks fall under this category and the remaining 67% of them have to travel 11-20 miles, which also applies to as many as 29% of the Gram Sewaks in the N.E.S. areas in the plains.

15. *Frequency of visits to Block Headquarters and other Government Offices* :—In the hills, the frequency of visits of the Gram Sewaks to Project/Block headquarters is once a month and to other Government offices it is nil. In the plains, on the other hand, the Gram Sewaks have to visit the Project/Block headquarters twice to four times a month and in some cases even more than four times, while the visits to other Government offices are much less. The distances involved in the plains are small comparatively.

16. *Visits cannot be curtailed* :—According to a vast majority of the Gram Sewaks and G.L.Ws., these visits are essential and cannot be curtailed, while those who suggested that they can be curtailed were unable to indicate any tangible proposals.

17. *Time required for travelling* :—A tentative basis for calculating time required for travelling may be one hour for every 12 miles as a maximum travelled on bicycle in the plains and 3 hours for the same distance travelled on foot in the hills. Break-up of the distances of the Gram Sewak circles headquarters from Project/Block headquarters indicates that while in the plains there are few circles at a distance of more than 12 miles, in the hills as many as 67% in the C.P. area and 44% in the N.E.S. area fall under that category. All such facts will have to be taken into account.

18. *Desired size of Area of Operation* :—In order to have an idea of the desired size of the area of operation of a Gram Sewak in terms of number of villages, the sequence of an analysis has been: (*a*) determination of the most suitable combination of functionaries for a Gram Sewak Circle ; (*b*) the number of villages desired for the most suitable combination ; and (*c*) the number of villages desired for a Gram Sewak circle with reference to the existing situation.

19. *Most suitable combination of functionaries* :—Study reveals that the best choice in the hills is that of a Gram Sewak plus a Lekhpal, while in the plain districts, the best choice is (a) a Gram Sewak only ; (*b*) a Gram Sewak plus a Panchayat Secretary plus a Lekhpal, and (*c*) a Gram Sewak plus a Lekhpal only in the same order of preference, except in some of the N.E.S. areas where higher combinations have been preferred as the second best choice.

It is interesting to compare the responses of the multi-purpose Gram Sewaks in the C.P./P.P. areas with those of the multi-purpose Panchayat Secretaries in Salempur and Kasia regarding the best combination of functionaries in a Gram Sewak circle. While the former have attached considerable importance to the addition of a Panchayat Secretary to the Team of a Gram Sewak and a Lekhpal, the latter have favoured only a Gram Sewak to manage the total programme at the village level according to 71% in Kasia and 65% in Salempur, and only 29% in the former and 10% in the latter Projects have favoured the combination of a Gram Sewak plus a Lekhpal. None of them has considered a Panchayat Secretary to be necessary for the Team.

20. *Number of villages desired for the preferred combination of functionaries* :— There is clear indication to the effect that in the plains, a circle of not more than 4 villages for a Gram Sewak only and one of not more than 6 villages for a team of a Gram Sewak plus a Lekhpal will be good basis for further analysis, while there will be further scope of enlarging the circle if a third functionary, i.e., the Panchayat Secretary is also added to the team. In the hills, on the other hand, a circle of not exceeding 12 villages has been suggested for the combination of a Gram Sewak and a Lekhpal.

21. *Number of villages desired for an ideal circle* :—The same opinions as indicated above have been corroborated by the Gram Sewaks according to

90% in the C.P. areas, 59% in the N.E.S. areas and 80% in the C.P. areas in the plains, and 50% in the C.P. area (with 28% 'no replies') and 89% in the N.E.S. area in the hills. The G.L.Ws. too have favoured circles not exceeding 6 villages according to 64% of them.

22. *Existing situation compared*:—A break-up of the existing circles according to classified number of villages reveals that while in the plains the circles with more than 12 villages in each are mostly concentrated in the N.E.S. areas (30% only), very few of which cover more than 16 villages each, the difficulty on this score is much more accentuated in the hills where no less than 15 out of 20 circles in the C.P. area extend over 13 to 37 villages each and all the 10 circles in the N.E.S. area except one with 28 villages as the lowest figure cover as many as 41 to 88 villages each.

A comparison of the existing situation of the Gram Sewak circles with the corresponding desired situation reveals that no less than 75% of the circles in the C.P. area and 100% in the N.E.S. area in the hills are being considered to be irksome by the Gram Sewaks, while in the plains the corresponding percentages for the C.P., N.E.S. and C.P./P.P. areas are 22%, 95% and 30% respectively. The nature of the villages in the cases of the existing as well as the desired situations being similar in each typical area for study, the comparison of the two situations made above is, roughly speaking, quite workable.

23. *Desired population indicated*:—The average and the model populations per village in the different typical areas under study indicate that the desired sizes of the circles as not exceeding 12 villages in the hills will generally cover a population of 2,000 to 3,000 and those of not more than 6 villages in the plains will cover a population of 5,000 to 6,000. These may, therefore, be taken to roughly indicate the desired sizes of the circles in terms of population. Since, generally speaking, under the present state of affairs, about one-third of the population does not demand effective work from the Gram Sewak, the above populations per circle will mean only 2,000 in the hills and 4,000 in the plains. Judged from that standpoint, the general trend of the trouble spots is almost similar to the one arrived at on the basis of the number of villages and the assumption regarding the population norms may also, therefore, stand as a suitable indication for subsequent analysis.

24. *Items of work*:—Both the Gram Sewaks as well as the G.L.Ws. were asked to indicate, under three mutually-exclusive categories, out of an exhaustive list of 51 items, such items as required more than 50% of the Gram Sewak's time during the season, those requiring less than 50% of his time and those requiring almost none of his time. They were further asked to indicate items which the Gram Sewaks were able to do effectively and those they considered to be burdensome. The G.L.Ws. were asked to express their opinions only in respect of items they supervised in the field. In the following analysis, therefore, the responses of the Gram Sewaks regarding ranking of items according to time spent refer to the total number of the respondents, while those regarding effective performance and burdensomeness refer to only those who actually handled the items concerned.

25. *Items considered important and burdensome*:—On the whole, 28 out of 51 items have been indicated to be important by more than 50% of the Gram Sewaks, while only 3 out of 51 have been reported to be not done by a similar majority. The remaining 20 items may be considered to be less important from the point of view of time-spending.

26. *Items done effectively and items considered burdensome*:—In the overall reckoning, no less than 40 items out of 51 have been reported by more than 50% of the respondents concerned as being done effectively which cover all the leading

items of work. Among the important items, the G.L.Ws. are less sure than the Gram Sewaks about the effective performance of the items (*i*) Agricultural Implements, (*ii*) Irrigation, (*iii*) Veterinary Services, (*iv*) Village Sanitation Drive and (*v*) Construction of lanes, soakage pits etc. Altogether six items have been indicated to be burdensome by 39% of the Gram Sewaks as well as the G.L.Ws. concerned, none of which falls under the category of leading items except Panchayat Tax Collection. The fact that 5 out of 6 items indicated as burdensome are less time-consuming and even out of those who are spending some time on them only 21-39% of the Gram Sewaks and the G.L.Ws. consider them to be so against 61% to 79% who hold the opposite view goes to show that none of the items can really be considered to be burdensome.

27. *Records and Returns*:—Analysis of data reveals that while there are some records of the Panchayats which are desired to be transferred by more than 50% of the Gram Sewaks in Salempur (V.L.W.), the Gram Sewaks in Salempur (V.L.W.) and Mahewa are almost equally divided in respect of most of the remaining records while in Bhagyanagar and Lakhna all the records seem to be desired to be kept rather than transferred. The case for a transfer of the cooperative records is still weaker in all the three pilot Projects. On the whole, therefore, the records being maintained by the Gram Sewaks in the various Blocks are important, and generally-speaking, they are not desired to be transferred.

Three points, however, emerged clearly from Group discussions at the time of the Survey, indicating the direction in which this burden might be reduced. *Firstly*, the over-lapping nature of the various records required an integrated system of the Gram Sewak records. *Secondly*, the work of consolidation of various forms should be transferred from the Gram Sewaks to the Block Office. Lastly, occasional reports and returns that are often demanded by the different departments and sometimes with a higher priority, increased the Gram Sewak's workload off and on and required adjustment.

With the inception of the revised series of periodical progress reports and other allied records that were finalised by the Planning Research and Action Institute and introduced in the field with effect from May, 1956, these difficulties have since been considerably overcome and they continue to be overcome with further adjustments and readjustments. The need of lightening the burden of the Gram Sewak in respect of the Panchayat records, however, is distinctly there.

28. *Seasonal Variations in Items of Work*:—On the whole, there is lack of coordination in phasing out the work of the Gram Sewaks and fixing their priorities. Even the fortnightly staff meetings did not seem to evolve an integrated programme of work and the Gram Sewaks generally settled their own priorities according to the pressure from the different G.L.Ws. As for too many orders from higher departments, general feeling voiced at the Block Headquarters during the course of discussions with the District and the Block Level Staff was that the working at their level, was more coordinated than between the corresponding Departments at the State Level. It was felt that not only the volume of instructions from the Departments was growing, but there was also a tendency of their being uncoordinated and sometimes even conflicting. The volume of reports and returns demanded was also considered to be generally excessive.

29. *Removal of Disadvantages of Multi-Command*:—Both the Gram Sewaks as well the G.L.Ws. were asked whether the existing system of staff meetings could be improved upon. The G.L.Ws are overwhelmingly of the opinion that no improvements are possible. The Gram Sewaks are divided in their opinions in the different areas, the N.E.S areas in the hills and the C.P. areas in the plains indicating that no improvements are possible, the N.E.S areas in the plains except Goshainganj suggesting that improvements are possible, while the C.P. area in the hills and the C.P./P.P. areas being divided except in Mahewa and Bhagyanagar where the Gram Sewaks distinctly feel that improvements are possible.

30. *Suggestions regarding Improvements*:—Further asked to offer suggestions regarding these improvements, no definite suggestions were made except in a few cases in different blocks. What was upper-most in the minds of those who offered some suggestions has, however, been noted, although no distinct conclusions can be drawn in view of the smallness of the number of respondents offering the suggestions.

The question put to the G.L.Ws. being more comprehensive, it can be said that according to 80% of the G.L.Ws., the defects of the joint command of the GLWs. are not overcome by the present system of the Gram Sewaks' meetings, the GLW Committee meetings and the fixation of the targets in advance.

31. *Occasions to meet other Gram Sewaks and GLWs.*:—Yet another question asked of the Gram Sewaks as well as the GLWs. was to indicate the occasions that a Gram Sewak has every month to meet and exchange experiences and ideas with other Gram Sewaks and the GLWs, apart from the Staff meetings. The highest responses for those who said they had no occasions to meet other Gram Sewaks came from the NES areas in the hills as well as the plains, the most outstanding examples in the constituent Blocks being those of Dhangu (89%), Mauranipur (75%) and Captainganj (88%). Social Meets offer the only important and regular occasion for the purpose. As for meeting the GLWs, the most important occasions are those of the GLWs on tour, Social Meets, and Gram Sewaks' Consultations regarding day-to-day work.

32. *Gram Sewak Set-up and Departmentalism*:—Asked whether the Gram Sewak set-up had been helpful in reducing 'Departmentalism', 78% of the GLWs replied in the affirmative, which also holds good about all the categories of the GLWs. They were also asked to comment on the subject, but very few have commented and none of them has offered any meaningful comments. It is difficult to judge whether the GLWs have fully understood the implications of the question or not.

33. *Study of Departmental and Other Literature*:—Asked whether the Gram Sewaks read any departmental books and periodicals connected with their work, the Gram Sewaks overwhelmingly said 'Yes' in all areas and all constituent Blocks except in B.K.T. where only 43% replied in the affirmative. The GLWs, however, are less sure of this Contention.

34. *Time spent in reading Literature*:—The Gram Sewaks were asked how much time (in hours per week) they spent in reading books and periodicals. The GLWs were asked how many hours per week they should spend in doing the same. In the overall reckoning there is very close proximity between the GLWs' responses regarding the ideal situation and the Gram Sewak's existing situation about time spent in reading. Seven hours per week seems to be the general rule which is also the duration which the GLWs desire the Gram Sewaks to spend for reading. This also disproves the contention that reading of books and literature has become the first casualty in order to save time for other activities of the Gram Sewak.

35. *Participation in Activities other than normal duties*:—Asked to tick-mark against 6 given categories the activities other than their normal duties which they participated in, the Gram Sewaks have indicated overwhelmingly in all the areas as well as in all the constituent Blocks, except in Dhangu in respect of 'Settlement of Villagers' disputes', that they participated in all activities. The fact that none of the given items admits of a fixation of targets or official pressure for compulsory performance by the Gram Sewaks, that for each item the Gram Sewaks have sufficient discretion and that each item is necessarily time-consuming, will lead one to assume that if a Gram Sewak is really over-worked, almost all the given items are likely to become a casualty. That none of the items

has become so further disproves the contention that the Gram Sewaks are overburdened with work. For subsequent studies, a more structured question would be highly desirable.

36. *Compatibility of the Role of Gram Sewak with those of Panchayat Secretary and Lekhpal*:—Having reviewed the existing work-load of the Gram Sewak under the current functional patterns and in the different areas of the State, falling in the conventionally accepted different regions and having also seen that combinations of the Gram Sewak, the Lekhpal and the Panchayat Secretary have beengenerally indicated to be the more favoured combinations of functionaries to manage the total programme at the village level, it is desirable that the roles of the Panchayat Secretary and the Lekhpal should be examined to see what sort of responsibilities of the Gram Sewak will increase in case of merging those of one or both, partly or wholly, with those of the Gram Sewak.

37. *The Role of the Panchayat Secretary*:—On the whole, subject to a re-adjustment of the work-load on account of Records and Returns and Tax Collection, the role of the Panchayat Secretary does not seem to be incompatible with that of the Gram Sewak. The overwhelming support of the Panchayat Secretaries for the multi-purpose system and their willingness to become multi-purpose Gram Sewak, the experiment of complete merger of the Panchayat Secretary's functions with those of the Gram Sewak in the Pilot Projects in District Etawah and the functioning of the Panchayat Secretaries as multi-purpose Gram Sewaks in Salempur and Kasia—all go to suggest that a merger of the Panchayat Secretaries' functions with those of the Gram Sewak will be quite workable.

XXI

PLANNING RESEARCH AND ACTION INSTITUTE, UTTAR PRADESH FUNCTIONS AND ORGANISATION

Aims and Objects

The Institute is an extension of the Pilot Project approach. The Institute concept grew out of the needs of the Community Projects and National Extension Service Blocks: to replenish the "Capital", which is fast running out under the strain of our heavy development programme, through study of new ideas coming up elsewhere or pilot experimentation; to evaluate results and methods of work; to provide specialist service to our field workers in those spheres where our programme is not making adequate headway; to fill up the gaps in available literature for the village people and our workers; and to study administrative and personnel problems and inter-relations.

Functions

The functions of the Planning Research and Action Institute, which works inclose collaboration with the various Development Departments, are as follows:

(*i*) to devise and test out through spot-work or pilot experimentation in selected areas, under controlled conditions individually or in groups, new ideas and methods which, if successful, can be pushed out into general field operation;

(*ii*) to study, test and adapt, for application in this State, ideas and methods coming up elsewhere in India or in the world;

(*iii*) to undertake quantitative evaluation and comparison of results of working specific projects or individual activities with a view to ascertain as to what are the weaknesses and strengths and how the methods can be varied and improved;

(*iv*) to observe, analyse and evaluate the development policies and actual work in the field; the relations of our staff to the people and their own inter-relations; to see whether maximum results are being attained, and whether and how this work and these relations and policies may be adjusted and improved;

(*v*) to conduct intensive seminars, short conferences and short-term training courses for specialised workers;

(*vi*) to disseminate the results of observation, experimentation and evaluation through publication of reports, brochures and other literature; and

(*vii*) to establish and maintain a library on various subjects falling within the purview of the Institute for reference by the development workers, both official as well as non-official.

Working in Section and Their Programme

The Institute consists of ten Sections:—

1. *Special Extension Work with Younger Age Groups*—

(*i*) Pilot Project in Rural Youth Organisation—Organisation and supervision of and guidance to Rural Youth Clubs.

(*ii*) Building up the programme into the departmental set-up of the Education, Social Education and P.R.D. through (*a*) seminars, and (*b*) training of A.D.O's. (Social Education), Extension Teachers, District Organisers and Zone Workers of P.R.D., Village Level Workers and other development staff.

(*iii*) Training and seminars of Voluntary Youth Leaders.

(*iv*) Co-ordination of Youth Work with other agencies, both official as well as non-official, concerned with the programme.

2. *Rural Industry*—To discover through Pilot Projects self-paying industries for establishment in the rural areas so as to be able to produce goods competitive in quality and price against other producers and offering opportunities of employment to the village population. Three Pilot Projects in rural industry have been worked out on (1) Tanning, (2) Pottery and (3) Papain. Three Projects, namely (1) Rural Cold Storage, (2) Production of crystal sugar through open pan system and (3) Agricultural implements are under investigation.

3. *Co-operatives*—The main purpose of this section is to devise ways and means for the real involvement of the people and development of local co-operative leadership and to evolve the pattern of co-operative development on a firm footing. Four Pilot Projects, named below, have been worked and are in the process of implementation.

(*i*) Pilot Project on Integrated Co-operative Development Project on the lines recommended by the Rural Credit Survey of the Reserve Bank of India.

(*ii*) Pilot Project on Member Education through group discussion and audio-visual aids within our means.

(*iii*) Pilot Project on Industrial Co-operatives.

(*iv*) Pilot Project in Co-operative Activity as part of Youth Programme.

4. *Evaluation and Statistics*—(*a*) Evolving suitable form of reporting in Community Projects and N.E.S. Blocks so as to ensure administrative co-ordination and reduction of paper work.

(*b*) Progress Reports, analysis and spot checking of work accomplished.

(*c*) Economics of field schemes such as :—

(*i*) Use of fertilizers.

(*ii*) Usar reclamation.

(*iii*) Artificial Insemination Centres.

(*iv*) Soil Conservation by the cultivators.

(*v*) Use of improved agricultural implements.

(*vi*) Selected industries, *e.g.*, Sericulture, Ericulture and Poultry.

5. *Rural Life Analysis*—(*a*) Evaluation studies combined with economics of schemes mentioned above as well as the following :

(*i*) Study of shramdan.

(*ii*) Study of Social Education, and

(*iii*) Role of V.L.W.

(*b*) Effects of Community Development Projects on the life and well-being of the village.

(*c*) "Village-Take-Over"—As evidenced by payment for services, by village responsibility for various operations and other indices. How and whether to accelerate.

(*d*) Operation of committees at various levels and methods of improvements:

Village Committees; Block Development Committees; Project Advisory Committees and District Planning Committees.

6. *Library, Information Service and Production of Literature*—The purpose of this Section is to keep our field workers supplied with up-to-date information not only in respect of the work being carried out in the Institute, but also elsewhere.

7. *Extension Work in Soil Conservation*—(*a*) Pilot Project in Soil Conservation through people's own efforts.

(*b*) Extension of Pilot Project work in Soil Conservation in Etawah, Jhansi, Sultanpur and Saharanpur Districts and drawing up a manual for Soil Conservation work.

(*c*) Organization of training in Soil Conservation Extension.

(*d*) Literature production, audio-visual aids and seminars.

8. *Preparation and dovetailing of the Second Five-Year Plan*—The work in this Section consists of supervision and co-ordination of the preparation of the Village, Block, District, Divisional and State Plans, working out their financial and other implications and their dovetailing.

9. *Social Education*—(*a*) Pilot Project in Social Education among prisoners.

(*b*) Pilot Project in Women Welfare Work.

10. *Rural Sanitary Engineering and Environmental Sanitation*—To explore the possibilities of improvement of environmental sanitation and pilot work therein. Also included is the close examination of current village work and suggestions for better economy, construction and performance with particular reference to:

(*a*) Problem of constructional adequacy of brick Kharanjas and other sanitary works consistent with economy.

(*b*) Problem of maintenance of sanitary conditions with small available supply of water, e.g., underground or surface drains in rural areas.

(*c*) Improvement of smokeless chulha.

(*d*) Latrines—cost, locations, maintenance and acceptability.

(*e*) Village re-planning and rural housing.

Organisational Pattern

Sectional Set-up—Each Section, except Library, Statistics and Second Five Year Plan ones, of the Institute is designed to have a working team consisting of a Specialist assisted by Senior and Junior Associates. The Specialist may be Foreign or Indian, but the Associates are all Indians. The Co-operative and Rural Sanitary Engineering and Industries Sections have each a Foreign Specialist. The Youth Work Section had a Foreign Specialist for $1\frac{1}{2}$ years. The arrangement has the advantage of combining specialised expert knowledge from foreign countries with Indian experience. The Institute is operating in new fields where we have much to learn from foreign lands. On the other hand, it is necessary to assimilate their experience and knowledge and adapt it to the needs of the Indian situation. The Foreign experts are engaged for a period of one to two years during which period the Associates are expected to be sufficiently trained to take over.

Team Approach—The Institute works as a team. Different Sections help each other in formulating projects and work hand in hand in all the stages of the programme. A Team Members' meeting is held every month to co-ordinate the work in the various Sections of the Institute.

Project Committees—For each item of programme of the Institute and for each project prepared by the Section there are small "Project Committees" consisting of Institute Members concerned with the project, representatives of the Development Department or Departments, non-officials and field-workers who will be involved in the results. The Project Committees meet regularly to scrutinise proposals of the Sections of the Institute, formulate the work in detail, guide, supervise and co-ordinate research and experimentation in the field, review the findings and final reports.

Institute Planning Committee—The highest organ of the Institute is the Institute Planning Committee consisting of the Development Commissioner, three University Professors, the Additional Development Commissioner, one Deputy and one Assistant Development Commissioner, the Director and other members of the Institute. The meetings of the Committee are also attended by the Heads of Departments concerned and the Deputy Development Commissioners. The Planning Committee determines the annual programme, allocates priorities, guides the general policy of the Institute and acts as a forum for co-ordination between the Institute and the Development Departments.

Relationship with Government and the Departments—The Director is also the Joint Secretary in the Planning Department. This system has been found very helpful in overcoming the difficulties of redtape. The Institute works with and through the existing departmental set-up and its Projects are built into the departmental machinery to faciliate "carry over" to the departments after the experimental stage is over.